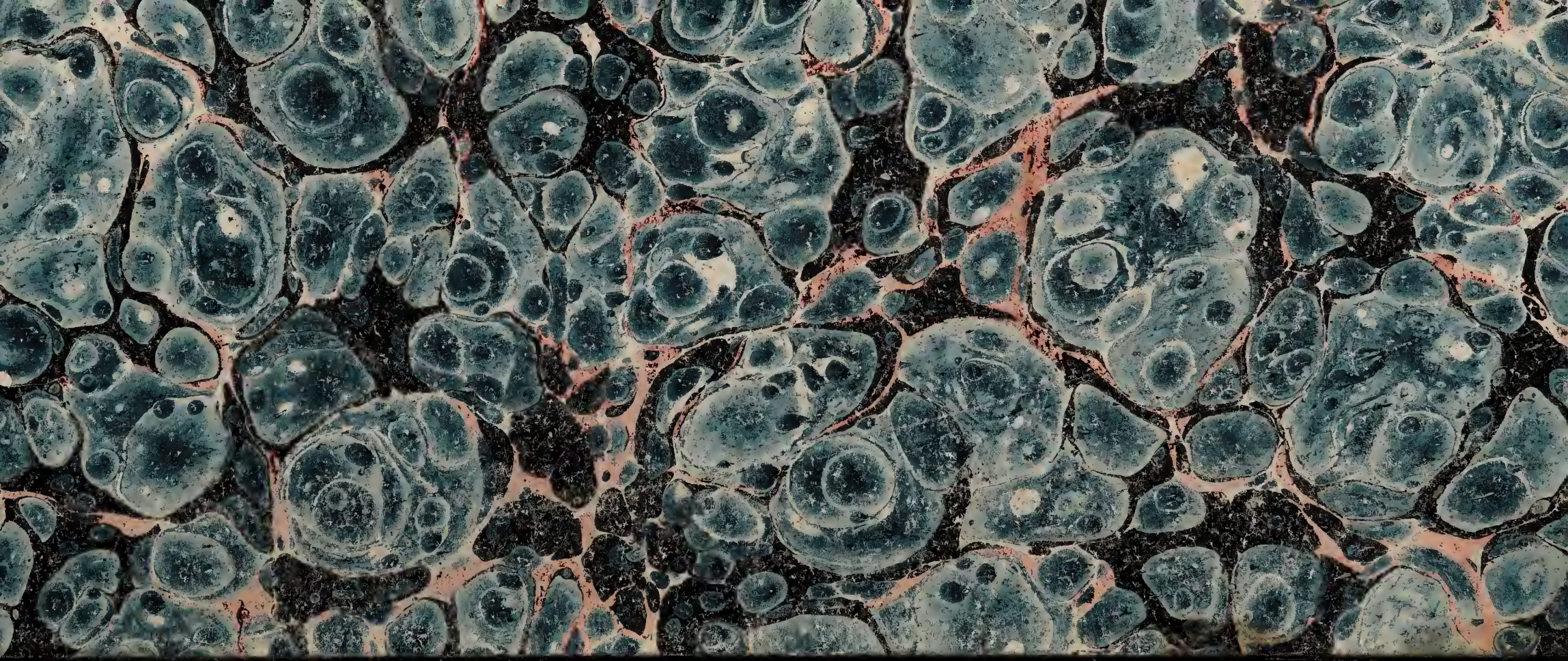

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THE COMPLETE INDIGO-MAKER.

CONTAINING,

An Accurate Account of the INDIGO PLANT; Its Deſcription, Culture, Preparation, and Manufacture.

WITH

Œconomical RULES and neceſſary DIRECTIONS for a Planter how to manage a Plantation, and employ his Negroes to the beſt Advantage.

To which is added, A

TREATISE on the CULTURE of COFFEE.

Tranſlated from the FRENCH of

ELIAS MONNEREAU,
PLANTER in ST. DOMINGO.

LONDON:
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TRANSLATION

OF THE

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PREFACE.

OF all the ſpecies of folly that fall to the lot of man, ſays M. De Claville, perhaps the *Cacöethes Scribendi*, the itch of writing, is the moſt pointed. But, he adds, why do men purſue this phrenzy; or rather why have I, conſcious of my own incapacity, followed the example of others? To the critics I ſhall anſwer in the words of Boileau:

" Ecrive qui voudra, chacun à ce metier,
" Peut perdre impunément de l'encre & du papier."

Upon this principle I have commenced author; I impoſe the reading of my works upon no one; nor is this aſſertion founded in vanity, or the high opinion I entertain of myſelf. Indeed this were ſcarce poſſible, as I never had any idea of learning—what then can be expected from me? I do not write for fame: my ſole ambition is limited to being uſeful to my countrymen, in committing to paper thoſe obſervations I have made upon the Indigo manufacture. Some friends, who entertain too high an opinion of my merit as an Indigo-maker, having requeſted me to publiſh my remarks, that they might be ſerviceable to thoſe who are engaged in the ſame fabrication; my zeal inſpired me with emulation, and I have exerted my endeavours to communicate the beſt idea of it I was able. Let who will treat me as a viſionary, it is not the leſs certain that there is ſomething curious in my little project, which our coloniſts will profit of, after they are acquainted with it.

I ſhall enable them to form a judgment. If my good wiſhes have any merit, I hope the public will

approve of my work; and if even I have not ſucceeded, I ſhall, at leaſt, have the ſatisfaction of having intended it.

I have learnt that many perſons have been ſhocked at the hideous portrait, in appearance, which I have drawn of the genius of the negroes; imagining that I would thereby inſinuate there were none good. But if they had conſidered that I was there giving inſtructions to a ſteward, not yet initiated into the myſteries of his profeſſion, to whom I was ſetting forth the vices of this race of men, that they might guard againſt them, I am convinced that they would think very differently. Had I wrote as an hiſtorian, I might, in diſplaying their vices, ſet forth at the ſame time their good qualities: but this is an object but of little conſequence to a pupil, who only wants inſtruction. I am ſenſible there are ſome of good diſpoſitions among them (though they are but very thinly ſtrewed) who would freely ſacrifice their lives for their maſters; but in this caſe, there is generally ſome ſecret intereſt that prompts them. There are, nevertheleſs, ſome who, when they have a real affection for their maſters, teſtify a tenderneſs that is truly filial. But would it be proper for me to write a panegyric upon the negroes? No, this was not the object I had in view at ſetting out. Beſides, if we were to depict our own vices and imperfections, without diſplaying our virtues, would our portrait be leſs hideous than that of the negroes? Alas! it is with regret that I dare aver there would be no kind of compariſon, and that the faults, vices, and imperfections of the negroes, would appear only as trifling errors, mere peccadiloes; particularly if attention were paid to their perverſe inclinations, and their very confined genius; for a negro without education is unacquainted with the extent of the fault he is committing, though he is not ignorant

ignorant that it is one; and if he pilfers any thing, he ſcarce reflects upon the injury the proprietor ſuſtains; this never enters his mind. If he were to ſteal a calf to-day, he would ſuppoſe it would be eaſily replaced the next day by the birth of another: his morals are as limited as they are looſe: he fancies all the whites are rich; or at leaſt that with their induſtry they ſhould be ſo. The negroes imagine that this opinion is the more certainly founded in truth, as they obſerve daily examples among an infinite number of people, whom they have ſeen arrive in the colonies with very little, (or perhaps nothing) and acquire immenſe riches. This makes them conſider all the whites as their maſters, though they are aſſured and even certain, that ſooner or later, they would change, by the heirs of ſome who uſually and inconteſtibly ſucceed to others.

I could eaſily diſpenſe with anſwering ſuch an objection, having the approbation of connoiſſeurs; but as I would willingly ſatisfy all the world, I imagined that thoſe who had not ſufficient light and diſcernment to judge for themſelves, ſhould be diſabuſed.

PRELIMINARY DISCOURSE.

ALL thoſe who make a voyage to the French American iſlands know, or ought to know, that Indigo is fabricated there It is alſo made in the Eaſt Indies, and the empire of the Great Mogul. The laſt is even eſteemed the fineſt; but this is mere partiality, to enhance its value, becauſe it comes farther. But as I know the conſequences, I ſhall not, with my eyes open, adopt this error, having the moſt convincing proofs to the contrary, and having worked with almoſt equal ſucceſs for many years; in which period I have paid attention to every thing that could perfect a work of this kind.

As order ſhould prevail in my little plan, it will not be improper to begin by a detail of the Indigo-works; it has too much connexion with the ſequel of this work, not to be admitted. Beſides thoſe who have never ſeen them, will not be completely ſatisfied ſhould I omit them. In imitation of Father Labat, who has given a very circumſtantial account of them, I thought it neceſſary to follow nearly the deſcription he has given, leſs from neceſſity, than to ſhorten the time required for making another arrangement, which would come to the ſame end. The truth of this will be evinced in the ſequel of this work, which could not have preſerved that perſpicuity, had I copied from different travellers, whoſe relations are uſually very much confuſed, without being acquainted with the ſubject treated upon, and are guided only by the teſtimony of others. Suppoſing even that theſe hiſtorians had been eye-witneſſes to what

what they advanced, this would not be ſufficient to enter into an exact faithful deſcription of all that relates to the Indigo. Wherefore the matter does not depend upon having been a mere ſpectator, it requires practice for a ſucceſſion of years to treat it judiciouſly.

It is therefore, upon conſummate experience that I undertake this work, without troubling myſelf about repeated details already given of this manufacture, by various authors, who, being ill-informed, have fallen into the moſt abſurd miſtakes, not only deſtitute of common ſenſe, but even probability.

For this reaſon, with my extenſive practical groundwork, I imagined I could go upon a new plan; my deſign, intention, and view concentered not only in ſatisfying the curious, but alſo to inſtruct, upon principles ſupported by inconteſtable authorities, a pupil who is ambitious of becoming a complete Indigo-maker.

Unaſſiſted with thoſe talents acquired by literature, I can offer nothing in my writings but great ſimplicity, which I may urge as a proof of my ſincerity. The uſeful is more to my purpoſe than the agreeable; wherefore the reader may conſole himſelf beforehand, that if he does not meet with that ſalt which gives a reliſh to the moſt trifling production; I can offer nothing to him but the naked truth, without paint or diſguiſe; being quite oppoſite to ſeveral authors, who, with an impoſing ſtyle, often vend us a ſhadow for a ſubſtance. I would willingly believe that they err through ignorance; but even involuntary ignorance does not always afford a juſt apology. It is incumbent upon a writer to be ſincere, and to make himſelf a maſter of the ſubject which he propoſes treating. For my part, I, who write with the proofs in hand, have nothing to fear but from the ſterility

of

of my ſtile. The ſubject is dry of itſelf, and I will frankly acknowledge, that it requires a more florid pen than mine to make it agreeable. But let us expatiate no longer upon this ſubject; leſt it ſhould be imagined that I affect an extravagant modeſty, in order to obtain adulation, I ſhall therefore terminate this vague diſcourſe, to return to what I propoſed.

The ſubjoined plate, whether real or imaginary, will furniſh a more perfect idea than words, of the Indigo manufacture; and being a tolerable draftſman, it was eaſy for me to give the reader this ſatisfaction. I have introduced all the neceſſary tools and inſtruments, and explained the uſe of each particular, in order to remedy any omiſſion in a ſimple narration.

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THE

THE COMPLETE

INDIGO-MAKER.

PART I.

Deſcription of the INDIGO *Manufacture.*

THE Indigo-works conſiſt of ſtone ciſterns*, in the ſhape of vats, plaiſtered over, and ſtrongly cemented, which contain the plant called Indigo, whilſt it is preparing, in order to extract the colour. There are three of theſe vats, which are placed above each other, and form a kind of caſcade, in ſuch a manner that the ſecond may receive the liquor from the uppermoſt, through an aperture therein made, and that the undermoſt may afterwards receive the contents of the middle vat.

The firſt of theſe vats, which is the largeſt and the uppermoſt, is called the ſteeper. It is uſually ten or twelve feet in length, by eight or ten in breadth, and three in depth, a declivity being made at the bottom, towards the aperture, that the liquor may drain through it. The ſecond is called the beater, which is narrower and much deeper than the firſt, in order that none of the liquor may be ſpilt by the agitation of the beating, as the loſs of any quantity

* Where ſtones are not to be had, the vats are made of wood, and the joints caulked, like the ſeams of a ſhip.

would be of conſiderable importance: and it has the ſame gentle declivity at the bottom towards the aperture as the former. The third, which is much leſs than the ſecond, is called the receiver.

The names of the two firſt vats are perfectly agreeable to their uſe. The ſteeper, is thus called becauſe the plant is ſteeped in it, to ferment and rot, after its ſubſtance is diſperſed in water by the fermentation occaſioned by the heat. In the ſecond, this ſame water, impregnated with the ſalts of the plant, is ſtirred and beat, till having ſufficiently blended and coagulated them to form a body, the particles that compoſe this tincture appear. The third vat derives its name from its receiving the liquor after it has paſſed through the neceſſary operations in the other two.

This third ciſtern contains the Indigo, after paſſing through the fermenting-vat, and being improved in the beating-tub. Here it unites, and becomes a ſolid maſs, being drained from the water; and it is after taken out and put into little linen ſacks, about eighteen inches in length, and afterwards in boxes.

A Definition of perfect Indigo.

Indigo, compoſed of the ſalts and ſubſtance of the indigo plant, is produced by the effects of fermentation, diſſolving the ſalinous particles of the leaves, which are afterwards coagulated by the violent motion of the beating, which gives it a ſufficient conſiſtence to blend into a maſs, and form that kind of paſte, which the ſun by its heat dries and brings to perfection.

But as there is ſomething marvellous in the courſe of its diſſolution, being the extraordinary effects of fermentation, I ſhall give an idea of the ſucceſſive changes it undergoes.

The

The marvellous Effects of the Fermentation.

The firſt effect of the fermentation is a little bubbling, ſomewhat reſembling that produced by a ſmall phial falling into water, which on entring the narrow neck of the phial produces ſmall bubbles of a greeniſh tincture, gradually increaſing ſo much, that at length the water is all impregnated with a very deep green, which then changes into a very fine copper colour*, and this in turn is changed into a deep violet: then the terrible effects of the fermentation appear; the ciſtern having acquired the neceſſary degree of heat, boils on all ſides with ſo much violence, that it caſts up pyramids of froth, that reſemble flakes of ſnow. The expreſſion terrible is not hyperbolical in this caſe; for the fermentation hath been ſo violent as to force away the bars, ſix inches ſquare on each ſide, and even tear away the keys, which are between five and ſix feet in circumference, half of which are ſunk into the earth: but as the ciſtern is not long heated to this degree, it muſt be acknowledged theſe accidents do not often happen.

The erroneous Opinions of ſome Authors refuted.

Before I go any farther, I ſhall take notice of an error into which ſome authors have fallen, by ignorance, or rather for want of experience. Theſe gentlemen maintain, (phyſically without doubt) that the Indigo is not formed of the leaf, which, according to them, is only a viſcous colour, or tincture, diffuſed by the fermentation of the plant in the water. What likelihood is there that the branches and the bark ſhould produce ſo ſudden an effect on about 300

* By this I only mean the ſurface, as the body of the water always continues green.

pails of clear ſimple water, as to thicken the ſame in leſs than ten or twelve hours, in which time a vat often ferments? It is an evident contradiction to ſay, that a plant which is hard and brittle, ſhould thicken it to a degree beyond the conſiſtency of the white of an egg, which in effect it is, and as thoſe who have ſeen the fabrication are ſenſible.

Can there remain any doubt, upon viewing the herb that is immerſed, which after being fermented hath only a leaf, very ſoft and fine, remaining, inſtead of being ſtrong and plump as before? What then becomes of its ſubſtance? It is, doubtleſs, diſſolved, and from this diſſolution the Indigo is formed. If any more obvious proofs are neceſſary to convince theſe gentlemen of the truth hereof, I ſhall deſire them to obſerve, that when the caterpillars have devoured all the leaves, the Indigo-tree is never cut. If then the ſtalks contained all the ſalts neceſſary for the compoſition of this tincture, the ravages of the caterpillars would no more injure our incomes than depreſs our ſpirits.

The Indigo Plant of Sarqueſſe, *the leaves only of which are uſed, according to M.* Tavernier.

Mr. Pomet, author of the Hiſtory of Drugs, tells us, upon the authority of M. Tavernier, that the Indians of the village of Sarqueſſe, uſe only the leaves, and throw away the plant; and that the moſt eſteemed Indigo comes from hence. This would corroborate my opinion in the ſtrongeſt manner, if the fact itſelf did not appear doubtful; wherefore I ſhall not found my aſſertion upon ſuch weak authority. Is it probable that men, whoſe indolence is equalled only by their ſtupidity, ſhould amuſe themſelves in culling the leaves of each plant? What time would it not take to fill a ciſtern with ſmall leaves, not larger than thoſe of our European box? But ſuppoſing the thing could

could be put in practice, could they be certain of the ſucceſs of the diſſolution? Would not all the leaves heaped upon one another, produce a gum of ſuch a texture as to prevent the water's penetrating? Could a thouſand Indians cut and cull a ſufficient quantity to fill a ciſtern? I will not allow it to be objected that inſtead of one day they may take three, as the firſt leaves cut would be ſcorched with the ſun, that they would pulverize upon the ſlighteſt touch. If upon theſe principles the Eaſt-Indian Indigo has the preference to ours, I cannot help joining with the proverb, "Opinion is every thing with the world."

Experience has convinced me, that we may carry the quality of Indigo to its greateſt perfection, by properly manufacturing it. People who ſtudy nothing but their intereſt, are not emulous of any improvement, as it will not bring a better price; for I have long ſince obſerved that the planter does not fix the price of the commodity; but he muſt, on the contrary, conform to that which the captains of ſhips chuſe to pay. For my part, without regarding ſo whimſical a cuſtom, I have endeavoured more to bring it to perfection than increaſe the quantity: but as people differ in opinion, and as the majority have always their intereſt moſt in view, it muſt always happen that there will be as much bad as good Indigo.

Add to this the quality of the ſoil, and the pureneſs of water, which have a great influence upon the luſtre of Indigo, which requires a black light ſoil, and clear running water, *; there are, however, ſome planters who heat the water by the ſun in ſtone

* The Indigo that grows upon hills, is preferable to that which grows on plains, on account of the lightneſs of the earth on their declivity, which is not baked by the driving rains as land on a level is.

baſons, made on purpoſe for this uſe, in order to produce an earlier fermentation, which it effects, but often at the expence of the quality, which ſuffers by it; but the Indigo thus prepared is ſpecifically heavier than when made of freſh water.

A Deſcription of the True Indigo Plant.

Of all the writers who have treated of the figure of this plant, none have acquitted themſelves better than father Labat: he had an amazing genius for giving a natural deſcription of things. I have met with ſeveral authors, who have written upon Indigo, but none of them have equalled him. Francis Piccard ſays it reſembles Roſemary, which it is as much like as an ozier-tree is a vine. Mr. Tavernier compares it to hemp, without giving it any other deſcription. But I will not tire the reader's patience, by any more ſuch uſeleſs quotations, but give Father Labat's deſcription of it, which is perfectly juſt; I ſhall only obſerve, it is the true Indigo he means; the others I ſhall take upon myſelf to deſcribe. "Indigo is a plant "that would grow two feet and upwards in height, "if it were not cut, as ſoon as it appeared upon "the ſurface of the earth. It divides itſelf into ſe"veral ſlender knotty ſtalks, and has various ſmall "branches or ſprigs, each bearing about eight cou"ple of leaves, terminating with one leaf at the ex"tremity. Theſe leaves are oval, and ſomewhat "pointed, pretty compact and ſtrong; they are "plump and ſoft to the touch; the branches bear "ſmall reddiſh flowers, nearly in ſhape like thoſe of "our broom, but ſmaller, which are ſucceeded by "pods or ſhells, of about an inch in length, and "very ſmall, which incloſe grains or ſeed that re"ſemble in ſize, conſiſtency, and colour, our radiſh "ſeed."

Such is the deſcription of the real Indigo plant; but there are various kinds, which are not all in uſe. I ſhall

ſhall begin with thoſe which I have manufactured, and are of three different ſorts, viz. the real, the baſtard, and the gatimalo, or guatimala, which derives its origin from that coaſt under the dominion of Spain of the ſame name.

The firſt produces the greateſt tincture, and is made with the greateſt facility, but its ſucceſs in planting is very doubtful; its tender delicate ſtalk in growing is ſubject to many accidents: the wind, rain, the ſun, all conſpire to deſtroy it; and even the earth where it grows ſeems to deny it aſſiſtance. If the earth be ſomewhat worn, it languiſhes, producing nothing but weak ſtalks, which periſh almoſt as ſoon as they appear: the ſun's ſcorching is another accident as fatal as the former; to this it is very liable during the firſt month of its growth, whereby the planter is conſtantly divided between fear and hope.

It is not difficult to explain the cauſe of theſe ſcorchings; the rays of the ſun darting upon the riſing Indigo after frequent ſhowers, communicate to the earth too great a heat, which coming ſuddenly upon the earth, cooled by the quantity of water which it had imbibed, heats the plant ſo greatly, that it lies bent like a faded root, and is conſumed by heat; this accident is very detrimental to the planter, who, in order to have an early crop, begins to plant early in the ſeaſon; and in this reſpect his vigilance is neceſſary.

It is again ſubject, during this hot time, to a ſmall inſect, which we call the burning-fly; this little animal, which in figure reſembles a ſmall caterpillar, incloſes itſelf in a cobweb, which covers and entwines its ſlender ſtalk, and burns and deſtroys it *.

To

* It is not the animal that burns the ſtalk, but properly ſpeaking the web, which receiving the night-dew, and being

To theſe accidents may be added that of the common caterpillars, which will devour, in leſs than forty-eight hours, whole beds of Indigo: this loſs is followed by another ſtill more conſiderable, occaſioned by another kind of caterpillars larger than the firſt, which inceſſantly gnaw the ſtocks and buds as ſoon as they appear: theſe inſects have a peculiar inſtinct, they bury themſelves in the earth, to avoid the moſt violent heat of the ſun in the day-time; and they iſſue forth in the cool of the evening, to begin their work afreſh the remainder of the day and the following night: this plan they follow for near two months ſucceſſively, at the end of which time the ſtocks of the Indigo appear quite dead, and ſome never recover; after which, they convert themſelves into Chryſalides, to become butterflies and inhabitants of the air. This misfortune is the more to be lamented, as it always happens in the fineſt part of the ſeaſon, and when the Indigo produces the moſt. The baſtard Indigo is leſs ſubject to theſe inſects, which are much more greedy of the real: this, in its turn, is eaſily ſtript of its leaves by the ſmalleſt ſhower of rain, which leaves nothing but the ſtalk; whence ariſes, that double the quantity of the plant is neceſſary to fill the ciſtern, and the planter ſuſtains a loſs of one-half. When all theſe loſſes are conſidered, which it is impoſſible to prevent or avoid, it is not ſurpriſing that this manufacture ſhould have declined ſo much, as to be nearly extinct *. The truth is, that far the greater

being filled with it, and afterwards heated by the rays of the ſun, it produces the ſame effects as boiling water.

* Mirbalais, Genaives, and Artibonite, are the only places where theſe manufactures now flouriſh; in this laſt country there are a ſufficient number to occupy annually ſix or ſeven hundred negroes. In the Department of the Cape

greater number of planters have diſcontinued the raiſing of Indigo for ſugar-works.

A Deſcription of the Baſtard Indigo Plant.

The baſtard Indigo, which differs from the other by its height, is a plant that grows in all ſoils, leſs in height indeed in an ungrateful ſoil; its leaf is longer and narrower than that of the real Indigo, of a clearer green, ſomewhat whiter underneath; leſs plump, and rougher to the touch, even ſo far as to prick; it grows to ſix feet high, if not prevented, which is a matter of importance, in order to work it with ſucceſs, whilſt it poſſeſſes the neceſſary qualities; for when it hath attained its greateſt natural height, it is impoſſible for the beſt Indigo-makers to ſucceed in working it: wherefore care ſhould always be taken to prevent it, by cutting it as ſoon as it begins to bloſſom; it is then about three feet high. There are ſome caſes in which it is proper to defer cutting it; this is when the Indigo, by a great fall of rain, has grown all on a ſudden, and when there is a likelihood of fine weather: in eight days of favourable weather it obtains a body, and the obſtacles that might ariſe in the fermentation are prevented; and without this precaution the moſt ſkilful artiſt would be embarraſſed. It often happens, from an abundance of rain, that we are obliged to throw aſide a whole crop, (the plant having no kind of body, diſſolves with the bucket) when, not to occupy the negroes fruitleſsly, the herb is cut, that the next crop may not be retarded. This moſt commonly happens in the firſt crop, when the weather is the moiſteſt.

Cape there are ſcarce any, except at Limbé, Port Margot, and Plaiſanne; but their greateſt produce is but ſmall, compared with the others.

The good Qualities of Baſtard Indigo.

If the baſtard Indigo is more difficult to manufacture than the real, it hath many advantages the other has not. 1ſt. Baſtard Indigo grows in all ſoils, and at all times. 2dly. The Indigo produced by it is more ſolid, finer, and of a higher copper colour; it reſiſts much longer the ravages of inſects, and even rain cannot ſpoil it, except it be very violent and uncommon. It doth not produce ſo much Indigo as the other, but this is balanced by the ſize of the herb, of which one-third leſs will do to fill a vat: ſo that upon a fair calculation, we ſhall find they are pretty near equal; and as it ſeldom periſhes in its infancy, we continue planting it inceſſantly in all kinds of ſoils, particularly old grounds, reſerving however the beſt grounds for the real; but it becomes very delicate when it is upon the point of maturity, which muſt be carefully watched, to prevent its ſeeding; for in that caſe it is very difficult to make: and if the manufacturer is ſkilful enough to ſucceed, it produces ſo little Indigo (except it be during the greateſt heats), that the trouble exceeds the profit: but when proper care is taken to prevent this, and the rotting and beating are duly attended to, it produces excellent Indigo.

This ſort of Indigo is a long while growing; for which reaſon many prefer the real, when the ſoil is proper; the latter may, if the ſeaſon is favourable, be cut in two months, and ſometimes ſix weeks. As to the baſtard, it requires upwards of three months; a mixture is ſometimes made of both; and although the baſtard does not grow ſo ſoon, they are nevertheleſs cut together, when either of them is fit. The ſtem of the baſtard puts out as vigorouſly as the other, and in ſix weeks they are cut, as if the two ſpecies were blended. The advantage hereby produced is, that

that the Baſtard embelliſhes the luſtre of the real, and the texture of this being finer, the manufacturer finds it eaſier to produce the degree of rotting required.

The Quality of Gatimalo.

The Gatimalo is a kind of Indigo, that ſo much reſembles the Baſtard, that it would be almoſt impoſſible to diſtinguiſh the one from the other, but by the pods, which incloſe the ſeed, and are of a browniſh red, as well as the ſeed; that of the baſtard is yellow, and the ſeed as black as gunpowder, which it greatly reſembles. As the Gatimalo is very difficult to make, and as it yields much leſs than the Baſtard, it is ſeldom uſed; but the ſeed being ſometimes mixed with the other, it cannot always be deſtroyed, notwithſtanding all the endeavours that may be uſed.

Wild Indigo.

There is a kind of Indigo, which grows ſpontaneouſly in the ſavannahs (or meadows) and which reſembles a ſhrub, having a ſhort buſhy trunk very thick, its branches iſſuing from the root; the leaves are more round, and ſmaller than thoſe of the real Indigo, but very thin, and therefore of no uſe.

Indigo Marry.

The Indigo Marry, whoſe leaves reſemble thoſe of the real, though not ſo plump, is ſeldom met with. Some affirm, that it produces a great deal of Indigo; but there is great reaſon to think the contrary, as no perſon has yet thought proper to plant it. There is alſo another ſpecies of it, which grows very high, and its branches extend above ſix feet

in circumference, the pods of which are a foot in length, and reſemble in figure a packing-needle.

Much Practice conſtitutes a good Indigo-maker.

Great practice is required to attain a thorough knowledge of the making of Indigo, for the ſame circumſtances do not always occur; it is even very difficult to give a juſt idea of it, unleſs the reader is acquainted with the practice. In a good ſeaſon the difficulty is nothing; but in a bad ſeaſon the moſt ſkilful Indigo-maker is likely to be baffled. It is true that Indigo is not every where of the ſame delicate texture; the more temperate the air, the more it is difficult to bring to perfection; and as I poſſeſs land that requires much attention for the production of this commodity, I flatter myſelf, from my great aſſiduity and exactneſs, that I have made ſome diſcoveries, perhaps beyond all thoſe who have been engaged in this manufacture before; having increaſed my care in proportion as difficulties aroſe.

The Herb muſt be inſpected, to judge of its Fermentation.

A ſkilful Indigo-maker ſhould, before he cuts the herb, examine it, in order to form as true a judgment as poſſible of the time it will require to ferment; this may in ſome meaſure be concluded from the dryneſs or humidity of the ſeaſon. It requires no great ſkill to comprehend, that Indigo which grows in fine weather rots better than that which has ſhot up on a ſudden from heavy rains. In this manner an Indigo-maker ſhould reaſon; and he ſhould examine his vat eight or ten hours before the Indigo has acquired its neceſſary quality.

At what Seaſon Indigo is planted.

The planters (at leaſt thoſe in the department of the Cape) who will not riſk their ſeed, begin to plant

plant their Indigo after Chriſtmas-holidays, which they may continue till the month of May; this laſt ſowing is even the moſt favourable, not being liable to ſcorching: but as the ſeaſon is too far advanced, it produces only two or three cuttings; after which, the north winds ſetting in, the ſtocks die, but the firſt planted is cut five times. The baſtard Indigo is ſown from All-ſaints day, to the end of the month of May.

However improper this term of planting ſeed may appear, I ſhall abide by it, to conform myſelf to the uſage of the country, which I am not entitled to alter: nor do I think it ſo ridiculous as ſome conſider it; for it cannot be ſaid to be abſolutely ſown, as it is dropped into every hole made by the hoe, whereas the ſowing of ground is, properly ſpeaking, ſcattering the ſeed promiſcuouſly, without being certain where it will riſe. I ſhall therefore agree with the other planters, that before the planting of Indigo, the old ſtocks ſhould be removed with the hoe; after which, the earth ſhould be cleanſed as much as poſſible; to which end a rake is uſed, to break the ſtocks in pieces, that they may be burnt. This rake is formed of a piece of a barrel head pierced in the middle, with a handle of about ſix feet long. The earth being thus prepared, the Indigo may be planted during the firſt rain, and which is performed in the following manner.

The Manner of planting Indigo.

The negroes who are to work at it range themſelves in a line, at the head of the ground, and keep marching backwards: they dig holes the breadth of their hoe, about two inches deep, and five or ſix inches aſunder, and in as ſtreight a line as poſſible; and that they may not be interrupted whilſt they are planting, the diviſions are marked out upon a line before-

beforehand, that during the firſt rain, nothing need be done but planting; for as there is no certainty of the continuation of the rain, ſuch precious moments ſhould not be loſt. As the negroes dig the holes, the negro-women, having a gourd-rake, divided in two, filled with ſeed, they pour it into the holes juſt made, whilſt others follow with rakes, and cover theſe holes, with about an inch or more of earth. Seven or eight grains of ſeed are ſufficient of the real Indigo, and leſs of the Baſtard, but they are not reckoned, as P. Labat avers, who ſays eleven or thirteen grains are neceſſary, ſeeming to place a myſtery in the uneven number. The time is too precious in our iſlands to attend to theſe niceties, when the rainy weather invites the planter to ſow; for the earth being once dry, he can no longer plant.

Dry-planting.

We are ſometimes obliged to have recourſe to dry-planting, that is to ſay, when there has been no rain for a conſiderable time, in order to forward the crop; a little ſprinkling of rain not being ſufficient to plant a large extent of ground; but this kind of planting is only ventured upon, at a time when rain is probably expected. Holes are dug in this dry earth, which is ſown and covered over immediately, in the expectation of ſpeedy rain: this greatly forwards the planter's views, when ſucceſs crowns his expectations. He ſees this ſeed riſe all at once, whilſt he has time to plant more during the opportunity of the rain; but if, on the other hand, dry weather continues, he runs the riſk of loſing all his ſeed, when it is ſcorched and hardened by the heat. At this ſeaſon ſometimes ſlight ſhowers fall, which only ſprinkle the earth, and make the ſeed ſhoot, but not ſtrong enough to force its way above the ſurface; whence a rot muſt neceſſarily take place, which is a conſiderable loſs to the planter,

on

on account of the time his ſlaves are unemployed, the retarding of his returns, and, in fine, the price of the ſeed, an object more or leſs worthy of his attention, according to the quantity which he had planted. A computation has been made in the diſtrict of Leogane, (now called Port au Prince) whereby it appears half a million of livres have been loſt by theſe fatal miſcarriages.

In how many Days the Seed comes up.

With reſpect to real Indigo, it comes up the third day, but the baſtard ſeed is ſometimes upwards of eight days; in proportion as it is more or leſs ripe, it is forward or backward, but it never appears all at once; every drop of rain brings up ſome; and it is not an uncommon thing to ſee it come up the year after, when it is too ripe: wherefore great care muſt be taken to prevent this over-ripeneſs, which is known by the ſhell: its beginning to dry is a proper notice that it is time to cut the crop.

The Cultivation of the Plant.

This plant, as I have before obſerved, requires a good ſoil; it greatly impoveriſhes the land where it grows, and muſt be alone. Too much attention cannot be given to prevent any other herb intermingling with it; and whatever care has been taken to cleanſe the earth, a fortnight or three weeks ſhould not elapſe after the plant appears, before the ground is cleared of all weeds that may ſurround it, and which will ſtifle it, if not removed; and this weeding ſhould be repeated every fortnight till the Indigo is ſufficiently grown to cover the earth with its ſhadow, and thereby prevent the weeds growing: they do not ſtand in need of rain to raiſe them; the heat of the country, joined to the plentiful dews, bring forth enough to make the Indigo periſh, if this weeding is omitted.

Cutting of the Indigo.

Large curve knives, reſembling ſickles in all but teeth, are uſed to cut the Indigo; the herb is cut within ſomething more than an inch of the ground; and bundles are made of it, of ſuch weight as a negro can carry, which are wrapt up in coarſe cloth, about an ell ſquare, tied by a ſtring at each corner, that the weed may be carried in the greater ſafety without dropping any of the ſmaller parts. One negro is employed in laying out the weed, whilſt the others put it into the ſteeper: to prevent any vacancy that there would otherwiſe be, if it were thrown in all together, and that it may not ſtick together, the negro ſtrews it lightly, an armful at a time: thirty or forty of theſe parcels are ſufficient to fill a vat, of the ſize above ſpecified.

After having filled the vat, it is railed over, and barred, to keep the weed under; it is then filled with water, and the whole left to ferment, in proportion to the heat, or rather according to the ſubſtance of the plant. This fermentation is not always of the ſame duration*; ſometimes it continues twelve, fifteen, twenty, thirty hours; and even fifty hours; but this is the longeſt time known, or at leaſt is ſeldom exceeded; and in this caſe it muſt be a firſt vat-full and the vat not uſed for a conſiderable time. I had worked upwards of ſix years with ſucceſs in the Indigo manufacture, when I made a diſcovery in regard to the beating, which aſtoniſhed many Indigo-makers, who were not ignorant in the profeſſion. I met with a woman, (for women are very ſkilful in the profeſſion of Indigo) who told me the ſame thing had happened to her. In the beating I was obliged to refine ſo much,

* We have ſeen ſome that would not rot but ſix hours; but this is extraordinary, and is a certain proof that it will produce very little Indigo.

as

as to entirely diſſolve the firſt grain, to make another come; for the firſt was ſo imperfect, that it diſſolved like Indigo fermented too much: I was at firſt deceived, and did not dare to continue the beating, finding the weakneſs of the grain, and I was upon the point of concluding that the vat was really too much rotted; when, conſidering the oppoſite marks that were viſible from the lightneſs of the ſcum, which remained clear from the moment I diſcontinued beating; I found there was a myſtery which I was willing to inveſtigate: I reſolved to let the vat reſt an hour or two, in order to obtain ſome new lights from the quality of the water. I did not fail to return at the time mentioned, when I found the water impregnated with the ſalts, which made me conclude I had not extracted all the ſubſtance. In order to be convinced, I ſent for my negroes, and ordered them to renew the beating: after they had done this, for about half a quarter of an hour, I ſaw a ſecond grain ariſe, much larger than the firſt, but very flat; it received a circular form by dint of beating; and this Indigo was very fine in quality, and drained * off very well from another red like beer. The whole cutting turned out the ſame. One of my neighbours, to whom I communicated this affair, was as much aſtoniſhed as myſelf, and aſſured me he ſhould have been deceived, as he never ſhould have thought of deſtroying one grain, in order to produce a ſecond.

The neceſſary Degree of Beating.

To beat a vat properly, the Indigo-maker muſt form a judgment of the produce; if he be ſkilful, he can diſcover this before the grain is formed; if it appears there will probably be an exceſs, the beating

* All Indigo that does not drain well, has undergone too great a proceſs, either in the rot-vat, or in beating.

muſt

muſt be moderate; and if on the other hand it is likely there will be a deficiency, he muſt continue it, even to refining; when he has attained the deſired point, he muſt take care not to exceed it; for the leaſt exceſs deprives it of its fine luſtre. To avoid exceſs, attention muſt be paid to the time the grain is the largeſt, and its degrees of diminution, till it become perfectly round, and the grains roll one upon another like fine ſand, till they ſeparate eaſily from the water, which then appears tranſparent and clear, and the * proof which covers the bottom of the cup readily follows the water, when the cup is inclined to one ſide, without leaving any droſs behind. It is now time to diſcontinue; if the beating were carried on any longer, it would diſſolve the moſt ſubtle parts; for the grains of the trunk are not of the ſame conſiſtency as the others, which is obſerved after over-beating a vat, from a kind of volatile grain that remains floating in the water; and which, though imperceptible, hinders the draining of the water; whence it reſults, that the diſſolution of the imperfect grains that have been too much beaten, do not retain a ſufficient weight to ſink to the bottom; and it is with difficulty that the Indigo drains off: theſe fine grains ſticking to the bags, and ſtopping up the pores; to this is owing the ſoftneſs of Indigo.

The juſt degree of beating requires great experience; on which only a proper knowledge can be be founded, though a novice of a year's experience may ſucceed; yet he will frequently err by over-beating—an accident that is without a remedy, and occaſions a double loſs to the proprietor, as well in reſpect to quantity as quality; the latter becoming flaty, which makes a conſiderable difference in the price. Add to this, the diſſolved grains are partly loſt, and thoſe that remain cannot be drained off;

* Proof is the granulated indigo in the proof cup.

which

which produces a box of indigo almoſt liquid; that cannot obtain its proper conſiſtency, without being diminiſhed half in value. Wherefore I would rather err on the ſide of not beating enough, than beat too much; if the Indigo is light, it is at leaſt fine, and will paſs for good; beſides, it may be rectified when the defect is perceived in time, by renewing the beating: wherefore the water ſhould be carefully viſited two hours after beating.

Recapitulation.

As it is ſcarce poſſible to avoid confuſion, in a detail of ſuch length, I imagine that after having particularly explained the difficulties ariſing from bad ſeaſons, it may be neceſſary to collect into one point of view, all the obſtacles that a manufacturer may meet with; for the loſs of one vat is frequently ſucceeded by that of another; this diſorders a third, and diſconcerts the Indigo-maker. 1ſt. It muſt be obſerved that in a wet ſeaſon, the Indigo having no body, muſt of courſe have an imperfect grain; wherefore the Indigo-maker muſt not attend to the grain only, but alſo to the water, and examine the livelineſs of its colour. 2dly, When there is too great a drought, the Indigo wanting ſubſtance, can produce no other than an ill-formed grain, as well as a water that is ſubject to a droſs, the ſure ſign of a vat over-fermented. 3dly. The firſt crop being made when the ground is freſh as well as the water, the Indigo muſt diſplay a falſe grain; but the waters being fine, theſe ſhould be his ſole ſtudy, remembering that at the enſuing beating, the water muſt be his faithful guide; which, however, he ſhould manage with great circumſpection. 4thly. The crop which is cut immediately after the ravages of the caterpillars, cannot fail producing a droſſy water; that is to ſay, there will remain a ſcum, which ſhould be carefully diſtinguiſhed

tinguiſhed from an exceſs of fermenting; it ſhould alſo have leſs beating than uſual, that the Indigo may not be ſlaty. What is ſaid with regard to this crop, may be equally applied to the Indigo in ſeed.

Quality of the Water after the Beating.

It is neceſſary that the quality of the water ſhould be viſited an hour or two after the beating, as nothing can ſo effectually remove all doubts with reſpect to its defects: a bad vat never produces good water; and the thicker it is, the more it is ſuſpected that it has rotted too much; but there is more reaſon to conclude that it ariſes from too much beating; for the vat being ſo over-rotted as to produce a thick water, the Indigo-maker cannot fail obſerving this from the weakneſs of its grain; whereas the Indigo approaching to the deſired point, he was willing to refine, thinking there was as much beating ſtill wanting as was over-done, which occaſions this error. In this caſe, it is eaſy to decide, by reflecting on the degree of beating that has been given. The thickneſs of the water often impoſes on the manufacturer, which is proved by the ſacks being droſſy, an invariable mark of Indigo that has been too much beaten, as well as when it has too much rotted. The confounding of theſe cauſes is very pernicious to the ſucceeding vats. Theſe ſorts of vats produce a bluiſh water, with a green ground: this green is occaſioned from the vat being too much fermented, it cannot undergo a ſufficient degree of beating to clarify the water. The blue mixture is nothing more than the grains that are broken, and which then colour all the maſs of water.

Another Obſervation upon the ſame Subject.

There is another quality in water, which is common to a vat too much fermented, this is, its being brown.

brown upon the ſurface, and about an inch beneath green, which is an infallible mark of its exceſs. All theſe vats are uſually accompanied with a thick ſcum, which divides itſelf into the form of little toads, which cover the vat immediately after the beating is diſcontinued. When this beating is not over-done, we find a light green water, ſometimes brown, and its defect is ſcarce perceptible, the water remaining clear without any ſediment: but theſe waters are very difficult to drain off, but eaſy to beat, frothing much in the beating. The quality of the ſlaty Indigo proves it has undergone an hour or two too much fermenting: and, perhaps, three in fine weather, when the fermentation does not make a greater progreſs at that time than in one hour in bad weather; the Indigo having then more body, its leaf is longer rotting.

Quality of the Water of a Vat not ſufficiently fermented.

A vat that requires more fermentation, almoſt conſtantly diſplays a water that is reddiſh, or yellowiſh green. When the Indigo is properly beat, it has no mixture of blue in it, but is more or leſs red in proportion to the due beating, and ſometimes greatly reſembles the colour of beer. The rule is not, however, ſo invariable as to be without exception, for there are ſome crops the waters of which are always red, when they have properly fermented, which the manufacturer may perceive by the grain. Beſides the redneſs of the water is not a bad ſymptom; as the Indigo then always drains well, and is of a fine quality.

The water which is the colour of coniac brandy is the moſt deſirable, becauſe we may then be certain that we have extracted the quinteſſence, and that it is deficient neither in beating or fermentation; but this cannot always be produced, eſpecially in the firſt and laſt crops.

When

When a leaden or flaty drofs iſſues from the pores of the ſacks, it is generally concluded that the Indigo has beeen too much fermented; but the perſon preſent at the beating can alone determine this to a certainty. On the one hand this drofs may proceed from the beating, the vat might have had its juſt degree of fermentation, and by too much beating this drofs may be occaſioned, in the ſame manner as a vat too much fermented may have rendered the ſacks very coppery; yet this is the mark of a vat that wanted fermentation, founded on a direct oppoſite reaſon; that is to ſay, for not having been ſufficiently beat, or its being done too ſparingly; though in this laſt caſe, it would be eaſy to be convinced by a cloſe inſpection, when it will be found there is a mixture of drofs blended with the copper.

A good Indigo-maker ſhould, therefore, be careful that his ſacks are quite free from this drofs and copper; and he ſhould conſider what degree of beating he gave, to judge with preciſion upon the ſacks, ſuſceptible of either.

A Calculation of the Produce of a good Vat.

A vat of the ſize I before ſpecified, may produce about thirty pounds of Indigo. I ſuppoſe this to be at a fine time of the year *, and that it is Indigo of the plains; as that of the mountains produces far leſs, the air being there more temperate. The baſtard Indigo produces, at moſt, not above twenty-four pounds.

* This would be a conſiderable revenue, without thoſe croſſes that cannot be avoided. 1ſt. The firſt crop produces but little, and the herb furniſhes nothing. 2dly. The ſecond crop is the beſt; the 3d diminiſhes one-third, the 4th three-fourths, and the fifth produces ſcarce any thing; and add to theſe the accidents of the plantation.

The

The water having remained ten or twelve hours in the vat, the fermentation produces its uſual † effect; and having undergone the different degrees of the proceſs, before ſpecified, the cock is opened to let out a little of the liquor into a ſilver cup, uſed only upon this occaſion; this water is ſhaken in the cup until the grains are formed; then their quality and that of the water are inſpected, and if it has attained the neceſſary degree of fermentation, the peg is drawn out to let this liquor into the beating vat, in order that it may undergo the operation of beating, to render it perfect.

The moſt certain Way of ſounding the Vat.

I muſt in this place take notice of an erroneous maxim adopted by ſome Indigo-makers, which is to ſound the vat from the top, without any diſtinction of time or place: if they were to do this upon the mountains, they would often be deceived, for the top there diſplays nothing but a falſe grain; therefore it is more certain to draw the water from the bottom, where the grain is in its natural ſtate, as it requires at leaſt two hours to fill a vat with water; during this interval the herb at the bottom is ſteeping, which is the fore-runner of fermentation. Beſides in rainy ſeaſons, when the Indigo does not ferment more than ten or twelve hours, the ſurface of the vat hath ſcarce any time to undergo an alteration.

The Manner of Beating.

Having diſcovered the critical time of the diſſolution, nothing more is neceſſary than beating to perfect the Indigo; which is done in the following

† The fermentation of the firſt vat is very peaceable, as its boiling does not produce a ſcum.

manner.

manner. There are three buckets without bottoms, having handles * the thickneſs of a man's arm ; with theſe buckets the water is violently beaten and agitated, without ceaſing, till ſuch time as the ſalts and other particles of the plant are united and blended together. It is in this place that any defects in the fermentation are diſcovered ; ſo that the beating in ſome meaſure requires more application : as at the ſame time it diſcovers thoſe defects, it points out the means of remedying them, provided no exceſs is committed : and though there ſhould be a miſtake of two or three hours in the fermentation in fine weather, this may be remedied without much loſs, and the quality of the Indigo will not be injured, if the beating be properly managed.

An Explanation of the Beating.

Beating may be called the emetic of the Indigo manufacture ; by this its defects are diſcovered and remedied, and the remainder of the crop is regulated. By the beating alſo the beſt vat may be ſpoilt ; that is either by too much or too little. If it be not ſufficiently beat, the grain, which is not yet formed, remains diſperſed in the water, without draining or collecting at the bottom of the vat, and when the water is let out, is loſt ; or if when ſufficiently beaten, the beating is ſtill continued, it is diſſolved,

* A hole is bored in this handle at a proper height, according to the ſize of the beating vat, that it may not come within a foot of the oppoſite wall. This handle is fixed upon the crooked timber, which being bored on both ſides to admit a pin, that runs through the timber and the bucket handle (ſee the plate fig. 2 and 3) it riſes and falls like a pump handle. The beaters muſt be very exact in ſtriking at the ſame time, otherwiſe the water will fly over. There is a new method of beating invented by means of a horſe and a wheel, which ſaves the negroes much hard labour.

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and from thence an equal inconvenience ariſes. The point then conſiſts in hitting the critical moment, and then to ceaſe and let the matter reſt.

The Manner of draining the Vat.

After the beating has ceaſed, the dregs ſink to the bottom of the vat, where they collect like mud, and the water being ſeparated from the ſalts, with which it was impregnated, ſwims on the top and becomes tranſparent: two or three hours are ſufficient for its ſettling, when every thing is right; after which, if time is ſcarce, the water may be drawn off; but it were better to let it remain ſome time longer, that there may be fewer particles of water, and that the ſmalleſt grains may have time to ſink to the bottom with the others. The cock, which conſiſts of three different pins, at the bottom of the beating-tub, is opened, beginning by the firſt pin. When the water hath run to the brink of the hole, the ſecond is taken out to let the draining be free to the ſurface of the Indigo; then it falls into the receiver. But if it ſhould happen, as it often does, that there is any water remaining, the laſt pin is taken out, and in its place a ſquare wedge is placed, when the Indigo ſtops in a ſurpriſing manner, to give way to the water, which iſſues from the ſquares of this wedge, and drains till the Indigo comes in turn. Then a baſket is placed beneath, which receives and retains the traſh that falls into the beater; and if any eſcapes into the receiver it is eaſily collected by means of an ordinary broom, or, which is better, the plant known by the name of the ſea-feather. Then the Indigo is put into ſacks, when it purges itſelf of the remainder of the water it ſtill contained.

The Indigo is uſually left till next day in the ſacks, that it may be radically purged of the water that re-

mained, and till it hath acquired the conſiſtency of ſoft cheeſe, which it greatly reſembles in every thing but colour: which being done, the ſacks are divided, and hung together in two different parcels, which preſſes and expels the reſt of the water that may remain; it is then ſpread in flat caſes, three feet long by one and a half wide, and two inches deep; and it is expoſed as much as poſſible to the ſun, in order to dry quickly. As ſoon as the ſun has hardened it, it cracks like dried mud: then, in order to unite it, it is trowelled very hard *; when, after being well united, it is cut into little ſquares, about an inch every way; it is then again expoſed to the ſun, till theſe ſquares eaſily diſunite from the caſe, then it is placed in the ſhade. There are few planters who dry their Indigo in the ſhade. This is an operation that takes up a great deal of time, even from the time of its being dry, till its diſuniting from the caſe. I have ſeen my Indigo remain ſix weeks in this ſtate, before it had acquired ſuch a hardneſs as was neceſſary for it to be barrelled. It becomes as white as chalk, from a kind of tartar, or ſalt-petre with which it is covered. This manner of drying it is, however, very favourable to it, as it ſeems thereby to acquire a freſh coheſion, it becoming as hard as a ſtone: its luſtre is alſo refined by the various ſweats it undergoes during this interval; and I do not doubt that acquires an additional weight; for I found that my Indigos weighed more than thoſe of my neigh-

* This operation ſhould take place in the afternoon, for this reaſon; when it is done in the morning, the ſun dries it ſo readily, that the ſurfaces of the ſquares riſe in ſcales, which make them rugged and uneven; whereas thoſe that harden in the night are as ſmooth as glaſs. Though this no way affects the quality, it at leaſt makes them more agreeable to the ſight.

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bours, and were in greater eſteem. I would not, however, have all planters indiſcriminately follow my example in this reſpect. Thoſe whoſe drying-frames are covered with two hundred caſes ſhould not practiſe it, on account of the great number of caſes requiſite, unleſs they were to lay a flooring to ſpread it upon, which does not appear impracticable, and where it will dry by degrees in a more temperate air. After which it is put into caſks, where it ſweats again, and acquires a freſh luſtre. Is it not ſurpriſing to ſee Indigo, before it is barrelled, as dry and hard as ſtones, yet within eight days, ſweat profuſely, and ſend forth a heat equal to that of fire, for nearly the ſame period of time; and then, without being expoſed to the air, become as dry as before in leſs than five or ſix days? It is now ſaleable, and it is the intereſt of the planter not to defer the vent, as it diminiſhes in a few months ten per cent. in value, by loſs of weight.

Of Kneading, and its Abuſes.

Kneading of Indigo in the caſes is a popular error that moſt planters have fallen into. The neceſſary coheſion depends ſolely upon the degrees of fermentation and beating, and particularly the laſt, which is very obſervable in a vat that is deficient in either. The Indigo eaſily breaks, and its grains not being ſufficiently coagulated to form a ſolid body, a defect muſt neceſſarily ariſe. And it is abſurd to imagine any quality of which it is deficient, can be communicated by ſo vile a method as kneading: which, ſo far from being uſeful, often creates a conſiderable loſs. Firſt, the ſun deſtroys the colour of the Indigo, by making it ſlaty on the ſurface, to the thickneſs of a ſixpence; and this Indigo burnt by the ſun, is blended with the other in kneading,

and may occaſion ſlaty veins, that will diminiſh its value. Secondly, it cannot be kneaded, till after it has been expoſed three or four days to the ſun, which renders it as ſoft as the firſt day it was there *; and this retardment is often the cauſe of worms getting into it; an accident that is without a remedy, and which cannot be prevented but by the neceſſary precautions; and which uſually happens in a rainy ſeaſon, when theſe inſects devour one part of the Indigo; and the other, which cannot be dried but with incredible difficulty, is of an inferior quality, whoſe price is diminiſhed one-half. This is ſolely occaſioned by deferring the drying, and which would have been prevented by ſpeedily doing it.

The Indigo that has been expoſed to the ſun three or four days, contracts a very ſtrong ſmell, of which the flies are very fond; and they feaſt upon this corruption with great avidity. They at the ſame time lay their eggs upon it; from whence iſſue worms that are formed in leſs than forty-eight hours, which inſinuate themſelves into the cracks of the Indigo, where they work, ſheltered from the ſun, ſo vigorouſly, that it is in a ſtate of fermentation, which leaves a glutinous kind of humour, that prevents its drying. Hence a conſiderable loſs is occaſioned to the planter, who, in order to remedy the inconvenience ſpeedily, is ſometimes obliged to keep a continual fire during the rains in the drying ſhed, that the ſmoke may prevent the flies attacking the caſes: this is the moſt effectual expedient to interrupt the progreſs of theſe inſects.

* Thoſe who do not knead, cut the Indigo the day after its being put into the caſes, which makes a difference of ſix days, if we include the time neceſſary for acquiring its firſt firmneſs.

Having

Having given so ample a description of the plant, I shall now present the reader with a just idea of the observations I made upon the fabrication of this commodity, a thorough acquaintance with this manufacture, and the means of discovering the critical time for the dissolution and beating of Indigo.

END OF THE FIRST PART.

THE COMPLETE INDIGO-MAKER.

PART II.

Neceſſary Remarks and Obſervations, to ſucceed in the Making of Indigo.

I Have already obſerved, that the moſt ſucceſsful method of making Indigo conſiſted, firſt, in inſpecting the plant, in order to know if it had any body; that is to ſay, whether the leaves were hard or ſoft, thin or plump. It may eaſily be comprehended, that Indigo raiſed in drought, will require more fermentation than that which was produced by plentiful rains; we muſt not, therefore, be aſtoniſhed if the latter is tardy in its proceſs, particularly a firſt vat; When the works are cold; this is not the caſe with a ſecond, and the third prevents all miſtakes. The firſt, by diſplaying an ill-formed grain, cannot attain the requiſite degree of perfection; and the judicious manufacturer, not to loſe time, thinks it better to retrench ſome hours, than to allow it one hour too much; being well aſſured that he may correct the ſecond vat the more eaſily, as the grain and the water appear more clearly.

Wherefore we may partly attribute this delay in the fermentation to the great coolneſs of the vat; for a firſt vat will not, ſometimes, ferment in leſs than forty hours, when a ſecond will not require more than twenty-eight. It is not difficult to comprehend the ſudden change in the ſecond vat; the veſſel having imbibed the juice of the firſt, retains a kind of tartar, which promotes fermentation, and ſeaſons the veſſel

veſſel ſtill more for the third; and hence it is, that this laſt is no way difficult; the proceſs is gone through with more ſucceſs than the two firſt. To this the Indigo-maker muſt attend; and it ſhould ſerve him as a conſtant prompter not to be negligent in viſiting it early, in order to catch it before it is gone too far; for then we are apt to think that it hath not ſufficiently fermented; its open grain reſembling that of the firſt, increaſes the deception; and in hopes of finding a favourable change at the ſecond viſit, we are much ſurpriſed to find the ſame grain: in this perplexity we run the riſk of letting it ferment ſome hours longer, and thereby infallibly loſe it. What the moſt diſconcerts us upon theſe occaſions is, that there is no calculating to a ſufficient nicety its exceſs of fermentation; whence it ariſes, that at the ſecond viſit the manufacturer ſhould take double care, which often increaſes his uneaſineſs in proportion.

Wherefore, to avoid theſe embaraſſments, particular attention ſhould be paid not to let the firſt vat exceed the neceſſary fermentation, as in this caſe nothing but an ill-formed grain can be expected; and as ſoon as we find it will bear the bucket, we ſhould ſtop. The beating will acquaint us with its defects, which we may the more eaſily correct, as the grain and the water unfold themſelves more naturally.

Take particular care that your cup is very clean when you try the vat, in order to diſtinguiſh the grain, and above all, the quality of the water. If there be any ſediment in the cup, it makes the water appear muddy; which, by confounding that which has fermented too much, with that which hath not ſufficiently undergone this proceſs, deceives us; and though we may diſcover it in the beating, which may remedy it, this cannot be done without loſs; and all this ariſes from a very trifling circumſtance.

As Indigo is of a very delicate nature, it requires a very phlegmatic, patient, quiet perſon to regulate it with ſucceſs; and I may add that the natural ſoftneſs of the ladies greatly increaſes their ſkill; for it ſeems as if this manufacture would not admit of any oppoſition: and the leſs headſtrong the manufacturer, the more ſucceſsful. I have known ſeveral planters ſuffer great loſſes from this very cauſe; and at laſt, tired out by ſo many obſtacles and croſſes, have been obliged to have recourſe to others of a more patient diſpoſition, who have ſucceeded: they were nevertheleſs far from being ignorant of the buſineſs; but their knowledge was the cauſe of their ill ſucceſs. Wherefore, however ſkilful we may be, there are critical moments when we ſhould not be aſhamed to aſk the advice of another. I do not advance a paradox, when I tell you, a perſon leſs ſkilful than yourſelf may remedy the defect, when he comes coolly to it, after you have been fretting at your ill ſucceſs.

The ſucceſs of the ſecond vat may be conſidered as the baſis of the whole crop: nevertheleſs, it muſt be expected, that the two ſucceeding vats will require leſs time to ferment; the reſt will be without difficulty, if the weather does not vary; but if it changes, the Indigo will change alſo: you muſt not be ſurpriſed, if three days rain ſhould occaſion a change of ten or twelve hours. It is now that the Indigo-maker is completely occupied, and all his judgment is called into play: but if, on the other hand, fine weather continues, he will not be miſtaken at moſt of above an hour or two: ſo that the Indigo-maker muſt be very ignorant if he miſcarries, after having ſucceeded in the firſt and ſecond vat.

The Difficulties of a firſt Crop explained.

A firſt crop is always difficult, for this reaſon, the ground has not been ſufficiently heated; add to this, the frequent rains that uſually fall at this ſeaſon, which together form the difficulties which embarraſs the planter, who has occaſion for all his experience, the Indigo diſplaying a grain quite oppoſite to that he was deſirous of producing: the cold, depriving it of its ſubſtance, weakens the grain; which, inſtead of appearing round as it ſhould do, is flat, and open ſo as to prevent diſtinguiſhing between that which has fermented too much, from that which has not fermented enough, and the ſhort time he has to balance between more or leſs fermentation, is ſcarce ſufficient to reflect in, the alteration of the grain being almoſt imperceptible: in theſe caſes there is a greater certainty in being ruled by the water than the grain: and nothing contributes more to miſguide the manufacturer than being uneaſy; and this ſometimes hurries him to draw off the vat at a venture, in order to diſcover by the beating in what particular he has been deceived.

The moſt uſual Marks of a Vat that is deficient in Fermentation.

Upon this occaſion the manufacturer ſhould be very vigilant in obſerving the marks of a vat which is deficient after five or ſix hours fermentation, at a ſeaſon when the grain is poor: he muſt not, however, form his judgment upon the weakneſs of the grain; the quality of the water and the light ſcum will undeceive him, though it be not hard in the beating; but you muſt not infer from thence, that there is any exceſs; the weakneſs of its grain will not allow it to

reſiſt the bucket; wherefore the quality of the water muſt be the object; and it ſhould alſo be obſerved, whether the ſcum reſiſts the oil that is thrown in *; or whether it immediately gives way, which is a certain mark of its being deficient in beating. There is ſtill a greater certainty when the vat remains clean, after the beating is diſcontinued, or if it is covered with a flower reſembling a kind of lees; but if this flower ſpreads itſelf in the form of young frogs, or like milk-curds, it may be ſuſpected of having undergone too much fermentation. In order to determine this with the greater certainty, the water ſhould be viſited two hours after the beating: the ſequel will decide the quality of the water of a vat that has too much fermented, or of one that is deficient. I ſhall alſo point out the obſervations that may be made with reſpect to the ſacks, and upon the Indigo ſpread to dry in caſes: ſo that if any doubts ſhould ariſe in one reſpect, they be cleared up in another.

Another Obſervation upon the ſame Subject.

It is not abſolutely impoſſible to ſee a vat that is deficient in fermentation, have a ſcum as if it had fermented too much, with this difference, that the latter hath a fat thick ſcum that never ſeparates entirely; it keeps conſtantly collecting in every corner of the beating-vat, is of a ſky-blue, and forms the curds when the beating diſcontinues; whereas in a vat that is deficient, the oil immediately makes the ſcum diſappear, let it be ever ſo thick; and if by accident any remains in the corners, it is of a very deep violet and although the ſcum often returns, yet it muſt not be imagined, as ſome fearful novicesdo, that there

* An infuſion of oil is made from time to time, in order to remove the ſcum, which prevents the buckets playing freely.

is any exceſs, and that the beating ſhould be diſcontinued: on the contrary, it ſhould be performed with more vigour, in order to let the Indigo drain off; the time which it is deficient in fermentation, weakened by the diminution of the beating, will, doubtleſs, produce an imperfect grain that many aſcribe to exceſs; and the imagination being ſeized with this miſtake, a quantity is loſt, whilſt the fault is aſcribed to the plant, that they fancy is of no value, and which completes their miſtake. It is the green water that appears after beating, which manifeſts a ſuperfluous fermentation, but which, in fact, proceeds only from a defect in the beating, not having had a ſufficiency to purge the water from all its ſalts; and, by a natural conſequence, retains its ſuperfluity, and occaſions the green colour that is ſpread over the ſurface.

A Method of preventing this Loſs.

The moſt effectual method of preventing the artiſt's being impoſed upon, is to continue the beating till ſuch time as the grain is entirely deſtroyed, in order to change the colour of the water, which by dint of beating becomes reddiſh; but if it be really too much fermented, the water blackens more and more, in proportion as the grain diſſolves. We may therefore be convinced of its defect, and conſequently be capable of remedying it in the next vat, and thereby ſecure the remainder of the crop.

The manufacturer who finds himſelf embarraſſed, ſhould uſe every means to arrive at the truth. It is very requiſite, for the ſequel of the crop, to be acquainted with the defects of a firſt crop, which is uſually ſacrificed, in order to ſecure the ſecond; for if this ſhould fail, the third is ſeldom ſucceſsful.

In this caſe a conſultation ſhould be had, or he ſhould poſtpone the proceſs for ſome days: if the conſultation ſhould not have a happy effect, the ſhorteſt way is to defer it for a week, that in the mean time he may compoſe himſelf; he is out of humour, and if he perſiſts he muſt loſe the whole.

A curious Obſervation, to avoid watching the Vats at Night.

As it is very fatiguing and dangerous to ſit up at night, this ſhould if poſſible be avoided; and the following obſervation has been of ſervice to ſome. Going about ſun-ſet, in the month of October, which is an expeditious time for fermentation, to try a firſt vat, I obſerved it ſcarce began to caſt its green tincture: I however examined it, and judged it muſt connue till near two in the morning; when conſulting my watch, and having given orders to let the water off at the proper hour, I went quietly to reſt, and I found the next day that I had ſucceeded very well. I made the ſame obſervation upon the ſecond vat, having taken the precaution to be preſent two hours earlier, and finding the fermentation in the ſame degree as the other, I diminiſhed the two advanced hours, and found I had the ſame ſucceſs. I continued my plan all the remainder of the crop, and I found it, in ſome degree, better than ſounding; day-light being much preferable to candle-light, eſpecially for thoſe who are ſhort ſighted, as green appears blue at night.

Important Inſtructions for finding the fixed Point of Diſſolution.

A vat, particularly the firſt, ſhould be tried very early, that we may not be ſurpriſed, and that the quality of the water, as well as that of the grain,

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ſhould be equally conſulted: an inſpection every four hours is ſufficient; for too frequent ſoundings and impatience are the certain methods of deſtroying it, as they prevent diſcovering any alteration. For example, after having ſounded the vat the firſt time, if it continues ten hours longer fermenting, and a ſecond viſit is made four hours after the firſt, muſt we not at the third viſit know what is to be done?

When theſe viſits are paid at a proper diſtance, we find a proportionable change: if upon the laſt inſpection it ſhould by accident have paſſed the critical point, there is no doubt that this will be perceptible from the water; and a judgment may be formed of the exceſs by the former viſit, as the lively green is no longer viſible; inſtead of this there remains a dirty green, or a pale yellow, evident marks of its exceſs; and even the water that cools upon the hands makes no impreſſion; this is quite oppoſite to that which has not ſufficiently undergone the proceſs, it colouring the hands in ſuch a manner that ſoap cannot efface it.

The Indigo which requires ſome hours more fermentation, is of ſuch a lively green, that every drop of water that cools upon the hands, makes ſo ſtrong an impreſſion, that they muſt be repeatedly waſhed with ſoap to take it off; whereas the impreſſion of a drop of water from a vat that has undergone too much fermentation, is ſo weak as to efface itſelf gradually as it dries.

Different Configurations of the Grain, according to the various Seaſons.

According to the wet or dry ſeaſons, the grain in the vats is long and pointed, or round like ſand; the firſt happens in a dry ſeaſon, the other in a favourable one; and in rainy ſeaſons the grain is flat, and open.

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In this laſt time you may eaſily be deceived, and it therefore requires great attention. Nevertheleſs, when the artiſt diveſts himſelf of prepoſſeſſion, he will ſcarce ever be deceived; the grain eaſily ſeparates from the water, in rolling it about the cup, and leaves the water of a deep ſhining green colour; whereas in a vat that has fermented too much, the grain, tho' open like the other, does not ſeparate from the water, but with much difficulty, and ſeems to remain floating in the water, the colour of which is often of a pale yellow, or a blackiſh green, and ſometimes a whitiſh green: this is ſucceeded by a flower reſembling lees, that unites together, and forms upon the ſurface of the water in the cup a kind of ſemicircle or rainbow, which is a certain proof of its having fermented too much. A vat that is deficient in this reſpect may alſo form a flower (as well from abundance of rain, as from the ſeed being already form'd and the plant over mature) but it does not adhere together like a vat that has over-fermented.

Good Indigo is not accompanied with theſe difficulties, but is eaſily manufactured; the grain and the water equally appear in their natural ſtate; and as it ſeems hard to ferment, there is time to let it attain the higheſt degree of perfection. What then ſhould prevent our producing as excellent Indigo as the Aſiatics? Can it be ſaid their ſoil is better? There is but little ground for this aſſertion, as good and bad Indigo are both produced from the ſame plantation. It only depends upon the ſkill of the perſon who has the management of the works. What ſuperior delicacy of genius can an Indian have over us? That their ideas are the moſt confined of any human beings, no body can poſſibly deny.

The Rev. Father Labat conceived, that all the ſecret thoſe poſſeſſed who praiſed their Indigo as ſuperior

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to ours, consisted in cutting the plant at a time when it produces a more lively colour; and he thought, that this was when the weed had not yet attained maturity. But this certainly is only the effect of his lively imagination, as experience absolutely contradicts it; for Indigo that is not sufficiently ripe (as he agrees) cannot acquire the necessary cohesion, whatever caution is observed in the beating, and always produces a soft Indigo, that breaks when dry like that which is not well worked.

A Definition of the Beating.

I have before observed, that beating was the emetic of Indigo-making; nor do I think the expression improper; it is in effect the principal operation, and which alone can bring Indigo to perfection, or destroy it. Without beating it is in a state of imperfection: and whatever care may have been taken, it is ineffectual. A knowledge in beating is to be preferred, to that of fermentation, and should be more carefully attended to, as it cures the defects of the former, and they are more easily perceived now than during that operation. For from the beginning of the beating, (on which depends the essential delicacy of the art) a judgment may be formed of these defects, unless the artist is prejudiced; but as soon as the matter is duly considered, a good manufacturer may know what to determine even before the grain is formed. If a vat be not sufficiently fermented, it froths a good deal with a greenish scum, which, though very thick, flies off very fast, as soon as oil is thrown in; and if this infusion is repeated a second time, the thickest scum is entirely dissipated*, and that which succeeds is nothing

* On the contrary, in a vat that has fermented too much, the scum will not be removed by a bottle of oil.

more

more than a light ſcum, which diſappears when the grain is formed. It is now that the defects of fermentation are to be rectified: in caſe of any deficiency the beating is to be carried to a greater height; and if it has fermented too much, then the beating is to be diminiſhed, and thereby the luſtre preſerved. The fixed point of fermentation is very ſeldom hit upon; there is always a ſmall error, which is made up by the beating; and there are ſome ſeaſons that require two hours to be retrenched in the fermentation, to avoid changing the quality*; otherwiſe ſlaty veins would be certainly found; and it is neceſſary to refine at this time in the beating, that is to ſay, to continue it longer than uſual.

A vat that has too much fermented, but the exceſs of which does not go beyond a few pounds of Indigo, may by means of the beating be corrected; that is to ſay, the loſs will conſiſt only in the quantity diminiſhed, and not in the quality of what remains, by purſuing the following method: Firſt, the ſuperfluous fermentation may eaſily be aſcertained by the fat ſcum, and by the open grain which cannot reſiſt the beating, and by its more ſpeedily forming itſelf; neither will the water clarify like that of a good vat. Theſe are infallible marks of Indigo that has been fermented too much. The manufacturer ſhould therefore be upon his guard at the ſight of ſo many proofs, and regulate the beating according to the apparent ſuperfluous or deficient fermentation. The following manner is to be gradually purſued: As ſoon as the grain begins to be large, the cup muſt not be quitted, as every ſtroke of the bucket now has effect; and when the manufacturer has diſcovered the inſtant that the grain is ſufficently round, he ſhould diſcontinue beating, without endeavouring to

* This is after all the ravages of the caterpillars, which ſeem to poiſon the ſtems.

diminiſh

diminiſh the grain. When he has attained this degree, he will find that the water in the cup becomes viſibly browniſh, which does not prevent its being green in the beating-vat, except the ſurface; there will even be a ſmall covering of copper colour over the whole vat, after it has remained undiſturbed for ſome hours. This is the copper that may be obſerved on the ſacks from a vat that has been too much fermented.

N.B. If any one ſhould pretend to object to what I have ſaid, the difference of climates in which Indigo is manufactured, and ſhould aſſert, that by a neceſſary conſequence the grain may be equally different: my anſwer is, that the difference in the grain is not abſolutely impoſſible, as I have obſerved in different plantations, that upon the mountains not being like that of the vallies; but the quality of the water is always the ſame; wherefore a vat which has undergone too much fermentation, will doubtleſs have a cloudy water, and will form a droſs in the ſacks. This cannot be diſputed; and I am convinced that Indigo will be manufactured with ſucceſs in all the climates, by following the rules preſcribed in theſe memoirs.

Œconomical Rules, neceſſary for an Indigo-maker; being a conciſe Method of regulating a Plantation of Negroes.

HAving undertaken to form a good Indigo-maker, I judged it neceſſary to complete the work, to include the œconomy of the art. He cannot at moſt be employed above half the year, and during the other ſix months of inaction, he will be engaged in conſuming the

the fruits of his labours. It is therefore neceſſary to form a plan to direct the neceſſary works upon a plantation, in order to acquire the ſcience ſo neceſſary to the art, and thereby unite the characters of Planter and Indigo-maker.

Although every planter has his particular form of œconomy for the land which he occupies, yet they all agree in the eſſential points, and differ only in trifles. It is eaſy for an Overſeer to conform to the will of the planter he ſerves, provided it does not run counter to the neceſſary management of his place: but in this caſe it cannot help making him uneaſy, when he endeavours to purſue the beſt method; and which being rejected, the bad conſequences reſulting from the other are aſcribed to him, and not the planter: wherefore the ſteward, jealous of fulfilling his duty, ſhould exert every poſſible means to eſtabliſh a reputation, this being the corner-ſtone of a good manager.

The Knowledge neceſſary for an Overſeer.

In order to attain to this degree of œconomy, a certain arrangement is neceſſary in his work, in order carefully to avoid doing any at an improper time, but employ every day to the greateſt advantage. This is the great axis upon which the knowledge of an overſeer muſt turn; and in order to accompliſh this, he ſhould be acquainted with the different works that ſucceſſively follow each other.

The firſt then may be ſuppoſed to conſiſt of clearing and preparing the land, in order to be able to profit of a favourable time for planting, the proper ſeaſons for which I have before noticed, and in particular, endeavour to avoid being interrupted by any other work, at a time ſo precious, that even the houſhold ſervants muſt be employed. Wherefore a proper

a proper regulation muſt be made of the neceſſary vegetables to be planted, that they may not interfere with the other object; and however preſſing other work may be, the planting of roots ſhould never be a matter of inferior conſideration; for a plantation that is deficient in this reſpect is a ſoul without a body; and this is of ſuch importance, that a manager is of no kind of value who is neglectful in this material point: and indeed a good manager is known by the quantity of vegetables that is upon a plantation.

I ſhall give a liſt of the different vegetables which are uſually planted, with the ſeaſons proper for each.

The arrangement of a place conſiſts of certain ornaments that embelliſh it, and which are no way detrimental to the revenues: theſe ornaments appear by the quantity of vegetables upon the plantation, diſpoſed in a certain ſymmetry, occupying the ground oppoſite the Indigo, unleſs it be neceſſary to let ſome Indigo grounds reſt that are too fruitful in the growth of weeds, and which occupy the negroes beyond their value: in this caſe, potatoes are planted to fatten the land, which give it a year's repoſe, and render it fertile. As to the Indigo garden, its greateſt ornament is being kept clean, and to prevent its being incroached upon by weeds; which ſhould be weeded before they go to ſeed.

Potatoes.

As potatoes have no fixed ſeaſon, and they are planted at all times, though the month of February is the moſt favourable for them; an interval ſhould be profited of, not to interrupt the work that is in a hurry; in two days, more may be planted than are neceſſary for four months, which is the time required for their attaining maturity; they ſhould not be dug up

up till the like quantity has been planted; by this means there is never a ſcarcity; and they ſhould often be removed, as it hurts the ſame ſpot to plant them frequently: without this precaution, there may chance to be none produced: they are uſually planted in the decline of the moon, as they are more fruitful at that time, than during a new moon when their vines are more plentiful than their fruit.

Of Peas of all Kinds.

As peas of all kinds require no particular ſeaſon any more than potatoes, ſo they are frequently planted in order to have green peas at all times. If it be neceſſary to have a crop to keep, they ſhould be planted in the decline of the moon; this is to be underſtood of the Guinea pea, and other ſmall peas, ſuch as the pigeon pea, the unknown pea, the Cayenne pea, &c.

Caſſada.

The caſſada is planted at Chriſtmas or in March, not that it may not be planted at any other time, but theſe ſeaſons are the moſt proper: the caſſada muſt by no means be neglected; it thrives in any weather, and in all ſoils, requires little labour, and will laſt four or five years without replanting, if the ground is ſomewhat high.

Yams.

Yams are planted at any time betwixt the month of May and the firſt full moon in Auguſt: this is a light food, and will keep in a loft from one year to another, and is a never-failing reſource in caſe of a ſcarcity of other proviſions: theſe roots require ſtrong freſh land *.

The

* In order to raiſe good yams, we ought never to make uſe of a whole yam as a plant; becauſe, though it be never ſo ſmall,

The Guinea yams are of a different ſort; they are very long, reſemble in ſhape the caſſada root, and and produce two crops in a year. On digging the firſt of which, the ſecond is immediately planted, which is performed by putting the old ſtalks in the ſame holes out of which the roots have been juſt taken, taking care to leave about a good inch of the root adhering to the ſtalk, which ſerves as a new root, and will immediately vegetate, and produce a ſecond crop ſome months after. Theſe ſorts of yams are inconvenient in this reſpect, that they will not keep, and they ſhould therefore be uſed as they are dug, like potatoes.

The Banana Tree.

The beſt ſeaſon for planting the banana tree, is during the full moon of Auguſt; otherwiſe the worms will deſtroy them every one: it produces nine months after. This is the true manna of the country for the negroes; and it being once planted, there is no occaſion for any farther trouble about it. This tree multiplies in ſuch a manner, that it is often neceſſary to lop the ſuperfluities; ſo that when once there is a banana ground, it is for a man's life, provided it is cleared once a year from the other buſhes and weeds that are contiguous to it. Care ſhould be taken to plant it in the dampeſt grounds, and particularly on the ſides of ditches, when it can be conveniently done.

ſmall, yet it always contains ſeveral eyes or buds, each producing ſeveral yams, which are ſo crouded by their numbers, that they have not room to grow to a proper ſize. The moſt adviſeable method is to cut a large yam into as many parts as it has eyes or buds, planting each part at the neceſſary diſtance; by this means you have only a ſingle yam from each plant; and having room to grow, it never fails to be large and fine.

I know

I know not whether the moon hath all the influence upon vegetables we are pleaſed to aſcribe to her; but I can aver that we very regularly, I had almoſt ſaid ſuperſtitiouſly, obſerve this cuſtom, it being handed down to us by ancient tradition; a tradition which we hold as ſacred, and which we frequently find very juſt: I have, nevertheleſs, ſometimes infringed upon the laws in this reſpect, without any inconvenience. For example, I always plant the caſſada the 1ſt, 2d, and 3d day of the moon, and ſucceed very well: it is certain that it is at leaſt a fortnight in the ground, and ſometimes three weeks before it riſes; and conſequently it appears in the decline of the moon; and I believe that with reſpect to all tardy plants the ſame thing may be obſerved*. I ſhall give a liſt of thoſe which I have often planted with ſucceſs; for example, caſſada, which I have juſt mentioned; rice, which upon the mountains is planted in January, March, and May, and in the plains at Michaelmas; French peas, French beans, and other large peas. As to pigeon peas, St. Domingo peas, and others of this kind, it is certain, if they are planted at the new moon, the worms attack them immediately as they appear, and there is no preventing it. Maize, and in general all grain except rice, are liable to the ſame accident if they are gathered at the new moon; and they cannot be preſerved three months without being worm-eaten; ſo that if they be ripe the fifth day of the moon, the crop ſhould be deferred till the decline; this does

* This is the caſe with yams, and banana roots. As to the laſt, I think it ridiculous to fix upon any particular days of the moon's age. I ſhould be glad to know if the ſhoots which multiply almoſt every month, exactly obey this cuſtom, and if they are obliged to appear at a fixed period of the moon's decline. Each ſhoot does not, however, fail to produce its number of bananas.

not

not, however, prevent the planting of maize in the increaſe of the moon, if neceſſity requires it; but in this caſe it ſeldom produces above one ear, and in the decline two or three. It is the ſame with reſpect to potatoes, which uſually produce only one, and ſometimes none.

Streaked Millet.

Streaked millet is planted in Auguſt, and the crop is gathered about Chriſtmas; and it is immediately cut, in order to have another crop at Eaſter: the moſt uſeleſs lands are uſually choſen for it, as it takes up a great extent, and is eaſily produced in an indifferent ſoil. Candle millet is planted at the end of March; this is more delicate, and requires a better ſoil: it produces only one crop, and may be planted in Auguſt; but in this caſe it produces more falſe heads than good ones.

Maize, or Indian Corn.

Maize is planted in Auguſt and September*, between the ſtalks of the Indigo; it is ripe in the month of December, and ſerves to rear poultry and fatten pigs; and as it is planted only once a year, there is not a corner that ſhould be neglected, in order to have a ſufficient crop from one year to another.

Such is the liſt of vegetables that are neceſſary to be planted; and however numerous they may appear, they are, however, only deſtined for the uſe of the plantation, children, ſervants, and ſick perſons, young ne-

* It is planted equally in March and April; but as the Indigo manufacturer plants it only once a year, his land being occupied, I ſay it is planted in Auguſt and September. Streaked Millet may alſo be planted at any time, provided it be cut in Auguſt.

groes,

groes, &c. and in caſe of neceſſity, for all the negroes in general; I mean when they have none of their own; for every one hath his little allotment of land, which he cultivates, as well for himſelf and his family, as for ſale, to procure him cloathing; for it cannot be ſuppoſed that a ſingle ſuit, given by their maſter, can be ſufficient for a whole year; and though they are working for themſelves only, yet the ſteward ſhould be very careful to viſit them, otherwiſe they would frequently be in want of neceſſaries, the negroes being naturally ſo lazy, that nothing but the fear of chaſtiſement can make them work; and as they have no receſs but Sundays and holidays, they often prefer walking to cultivating their own land; for though they are not allowed to go out without a written leave from their maſter or the ſteward, they make no great difficulty to exceed theſe orders at the riſk of being taken up, and making their maſter pay a fine*. It is therefore neceſſary the ſteward ſhould keep a very conſtant eye upon them, till ſuch time as their place is in order: they may then be allowed to divert themſelves; and to engage them ſtill more to be regular, they ſhould from time to time have a day to work upon their own ground, when the other work is not very preſſing, which produces a very good effect by preventing their being without vegetables. The neceſſity there is of their being furniſhed with them clearly evinces itſelf; and if I recommend punctu-

* Every negro who leaves his maſter's houſe, ſhould be furniſhed with a billet, whereby he is allowed to go to ſome particular place; and his buſineſs ſhould alſo be ſpecified, with the date of the day, and the time he may remain abſent: otherwiſe he may be ſtopped by any one, who is entitled to ſix livres from his maſter when taken in the diſtrict; and from one diſtrict to another it is eighteen livres. If he be ſtopped upon the Spaniſh ground, it coſts fifty crowns, which fine is extended to every negro.

ality

ality, it is only to cenſure that affected indolence of a great number of planters, who give themſelves no concern about it, having nothing in view but the increaſe of their revenues, and yet run a courſe diametrically oppoſite. I would aſk what figure a negro can make in a work ſo laborious as that of digging the earth from morning to night, having no nutriment to ſupport his ſtrength? I agree that a negro is very abſtemious, when the occaſion requires him to be ſo; but at the ſame time has a very good appetite when there is plenty, which makes him ſtrong and robuſt, and enables him to perform more work in one day than four others who have not the ſame nouriſhment. A planter therefore neglects his own intereſt who is inattentive to a matter of this importance.

The Genius of the Negroes diſplayed.

Before I enter upon a detail of the work, I ſhall characteriſe the genius of a negro, which is not eaſily defined. Many years are required to inveſtigate it completely; wherefore it is neceſſary to be acquainted with their manners, to guard againſt their ſnares. They are in general great talkers, cheats, liars, lazy, laſcivious, and impudent, if not kept within proper bounds. It is a melancholy neceſſity to be compelled to inflict chaſtiſements proportioned to their crimes, without which, they are all ready to return to their former vices. Pilfering is with them a kind of ſecond orignal ſin: they make no ſcruple of doing it, and though they are taken in the fact, they will never acknowledge it; they ſeldom diſcover their accomplices, being convinced they will be in the ſame ſituation the firſt occaſion that offers; they think they have a right to the goods of others: they are very dexterous in ſeizing upon them; and they perſuade

themſelves that the riſque they run in taking them is a ſufficient excuſe; they have even a ſecret joy after the action, which is depicted in their countenances; and if this dexterous champion ſhould immediately meet with any of his companions, he would give them a treat, in ſharing with them, according to his expreſſion, a gratuitous acquiſition God had ſent him. With regard to work, they always do as little as poſſible; wherefore they ſhould be conſtantly watched, and never confided in.

I have juſt hinted at the rigour that it is neceſſary to obſerve with regard to the negroes; but care ſhould be taken that it does not degenerate into cruelty, which is already but too frequent in our iſlands; where, upon a ſimple ſuſpicion or a ſlight fault, unwarrantable cruelties are exerciſed. The chaſtiſement ſhould always be proportioned to the crime; if attrocious, it ſhould not be ſpared; but ſmall faults ſhould often be winked at, otherwiſe puniſhments would be inceſſant.

If you chaſtiſe a negro for ſome great crime, of which he is really guilty, he will never complain; and you will thereby keep the others within juſt bounds, for fear of the ſame chaſtiſement.

The Character of a Negro Overſeer.

You may eaſily comprehend, by this ſample, that the occupation of a manager who would fulfil his duty is extremely fatiguing; wherefore the planters, to leſſen the burden, have appointed a negro overſeer under him, who conſtantly watches over the conduct of the others, and who ſhould give a faithful account of their actions: the ſuperior regard that is paid to him above the others, does not a little contribute to his exactneſs: if to this is added his deſpotic authority over all the labourers, you will be convinced of the intereſt

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he hath to maintain his poſt: but do not rely too much upon his ſuppoſed fidelity; he is ſometimes worſe than all the reſt; and it is judicious to chuſe him ſuch, for being more wicked, he is the more feared; and being acquainted with the tricks of his brethren, he knows how to prevent their taking place: he has moreover a happy talent for keeping you in a ſtate of illuſion; he will pretend the moſt fervent devotion to you, in order to deceive you; wherefore, you muſt fathom his genius, and your familiarity ſhould not go ſo far as to make him believe that you are convinced of his attachment. Do not wink at his faults; for he never errs through ignorance; for which reaſon, when he is guilty, give double chaſtiſement, and he will not complain, being ſenſible that he deſerves it. I ſhall diſmiſs the character and genius of a negro overſeer, by making you obſerve upon whom he the moſt frequently inflicts his puniſhments; and whether he is equally attached to the moſt cunning as well as the moſt ſtupid. He uſually addreſſes himſelf to the latter, who are almoſt conſtantly the victims of his brutality, not daring to exerciſe his vengeance upon the moſt mutinous, with whom he is frequently a companion and connected; in this caſe you ſhould ſeverely reprimand him in private; but in public you ſhould warmly ſupport his authority, in conſtantly approving the chaſtiſements he inflicts, and recommend to him when alone to do ſtrict juſtice.

I imagine I have been ſufficiently diffuſe with regard to what relates to the ſlaves, when under your conduct; experience will teach you the reſt: I ſhall enter more minutely into this matter in the ſequel; and now give an idea of the different work that ſhould ſucceſſively take place.

Remarks upon the daily Work.

The propereſt arrangement is to begin by the planting, and follow by degrees the other work. It is of importance to obſerve, that in planting Indigo, that only half of the ground prepared ſhould be ſown. An interval of a month or more ſhould be left for the remainder. This precaution is the more neceſſary, as the rains often oblige us to defer the firſt cutting which might be pernicious, if all the ground were imprudently planted at once, without allowing the neceſſary diſtance of time to the perſons employed in cutting. An advantage is even derived from this intervention to perform the firſt weeding, which cannot be deferred. A plantation always requires ſomething to be done, whether it be the planting of vegetables, cutting down freſh wood, clearing ground over-run with weeds to improve it, or upon which ſome building is propoſed to be raiſed, or an incloſure made: all theſe occupations ſhould be provided for whilſt the plant is growing; for when the time of cutting comes, it is with difficulty theſe things are provided for, and to weed ſo exactly as to prevent weeds multiplying, which ſhould be carefully avoided.

Preparations for cutting

When the time of cutting arrives, the preparations conſiſt, firſt in making a general viſit to the Indigo-works, and what relates to them, to be certain that they are in order, and that there is no danger of their leaking either by the cocks or from the vats themſelves, if the keys or the futtocks are in good order; the frame and ſcaffold of the pit ſhould alſo be reviewed, paying great attention to their ſolidity, to avoid the inconveniencies that might otherwiſe ariſe; for if the ſcaffold ſhould be defective

the negroes upon it would run the risk of their lives. Care ſhould alſo be taken to try the brake and its line; for if either ſhould break, the negroes cannot eſcape being hurt by the fall of them. Therefore great attention ſhould be paid to prevent theſe accidents, which can ariſe from nothing but negligence. Viſit alſo the bars of the Indigo works, that you may not be obliged to ſtop in the middle of a cutting, which frequently occaſions great interruption to the Indigo, and in the ſpace of a few days may change the fermentation, either by the cooling of the veſſel, or by the rains that ſuddenly come on: there may be four vats without diſcovering the critical point, occaſioned entirely by inexcuſable indolence.

Such are the neceſſary precautions: prudence alſo requires, that during the month before the cutting takes place, all the neceſſary ſteps ſhould be taken to prevent any diſagreeable accidents happening.

Such an order being eſtabliſhed, the Indigo-maker is employed ſolely in cutting and weeding till the crop is finiſhed; after which, he engages in the moſt urgent works, being perſuaded that it will not be long before he makes a ſecond cutting, which requires much more vigilance than the firſt: the caterpillars that begin to prepare for their harveſt, inform him that the time is more precious than ever, as the Indigo ferments more than ever; nor can attention be now paid to Sundays and holidays.

I have conducted you to the ſecond crop; it would be needleſs to go to the third, as it is much ſlower the former.

The Duties of a Steward.

A ſteward ſhould in the firſt place be exact, in calling together all the workmen night and morning to ſay their prayers, when he ſhould notice thoſe who fail without a juſt excuſe; he ſhould ſlightly chaſtiſe

them for the firſt omiſſion, at the head of the negroes, as an example for others.

His Circuit.

He ſhould every morning make a circuit round the place, where he ſhould immediately take the number of the negroes, noticing thoſe that are abſent, and the reaſon of their being ſo, in order to give an account to his employer, if he chuſes to require one. When I ſay he ſhould make this circuit in the morning, I do not mean to exclude the reſt of the day: this tour in the morning is to aſcertain the number of the negroes in order to give an account of the abſentees when required by the employer. If this abſence ſhould be occaſioned by illneſs, ſpeedy aſſiſtance ſhould be given. This circuit is made between ſunriſe and the hour of breakfaſt; after which, a ſecond ſhould take place, about nine or ten o'clock; after which, the ſteward returns home to avoid the violent heat of the day. Afterwards about three o'clock in the afternoon, he makes his laſt circuit; when he ſhould obſerve which are the fitteſt for work the next day; for in this there is a continual ſucceſſion.

His Care for the Sick.

A ſteward ſhould not neglect the ſick in the infirmary, which he ſhould viſit twice a day, to know if every patient is properly ſupplied; that thoſe who are wounded or ulcerated are punctually dreſſed; which he ſhould ſee performed whilſt he is preſent, for the greater certainty. He ſhould omit nothing for the eaſe of his patients, with whom he ſhould, in caſes of neceſſity, divide his own ſoup. But as from ſuch kind treat- there are many who ſham themſelves ſick, or pretend to continue ſo longer than they really are; ſtrictly obſerve theſe kind of valetudinarians, and make them

move in due time: but do not confound thoſe who are really ſick with the pretenders. Pay the greateſt care to the firſt, and let them have their victuals in your preſence; by which means the patients will ſoon be able to leave the hoſpital.

To take an exact Account of the Animals.

Keeping an account of the animals of every kind, is alſo in the ſteward's department, as well as taking care that they are duly attended. He ſhould likewiſe from time to time go round the negroes habitations at night, to prevent diſorders among them, and never rely upon their pretended tranquillity: this is an ill-placed confidence, of which they uſually know how to take advantage. They ſhould alſo be ordered to take care of all the utenſils of the plantation, ſuch as bills, hatchets, hoes, &c. and they ſhould be put out of the heat of the ſun, leſt it ſhould ſpoil them. This is the peculiar province of the negro overſeer on pain of chaſtiſement.

His Attention to Encloſures.

He ſhould punctually examine the Encloſures once or twice a week, to be convinced that there are no breaches, through which the animals may paſs, and do conſiderable damage even in a ſingle night. Such breaches ſhould be immediately ſtopped up. The live hedges ſhould be cut, and trimmed at leaſt three times a year: this is the great ornament of a plantation, which agreeably ſtrikes the ſight, and diſplays the good planter.

The accidents which happen to a plantation may uſually be traced to the indolence of the ſteward, who confides too much in the report of the negro overſeer, who frequently takes a malicious pleaſure to deceive him, and particularly when the ſteward has diſpleaſed him, in order that his maſter may in turn be diſ-

pleaſed with him. Negroes are naturally inconſtant, fond of frequent changes in the ſtewards, as they ſeldom find one to their taſte, which hardly ever correſponds with that of his maſter; for it is impoſſible to pleaſe both: wherefore a ſteward ſhould be inceſſantly upon his guard, and in conſtant diſtruſt, particularly when he gives orders for a work that cannot be poſtponed; in this caſe he ſhould be a ſpectator, and chaſtiſe the black overſeeer for the firſt fault of this nature, as his omiſſion muſt ariſe from malice.

He ſhould prevent the aſſembling of ſtrange Negroes.

He ſhould alſo forbid the aſſembling of any ſtrange negroes, in order to prevent the diſorders which uſually enſue theſe kinds of feſtivals, as they ſeldom terminate without quarrels; or if he ſhould ſometimes tolerate them, it ſhould be with great circumſpection; and when the black overſeers on both ſides guaranty their tranquillity: he ſhould nevertheleſs be preſent at the leaſt diſturbance.

Theſe aſſemblies uſually take place to celebrate the funeral obſequies of their departed friends. It is a law with them to pray for the dead, which ceremony is performed in the following manner*: The

* This ſuperſtitious cuſtom was at length aboliſhed by an arrêt of the Superior Council of the Cape, on pain of a penalty of three hundred livres upon the proprietor. On the 7th of April, 1758, on account of the Makandaliſts, ſo called from their chief, the negro Makendal, who was burnt to death, with many others of his accomplices, who had ſworn the total deſtruction of the whole race of whites in the colony—Fatal epocha for our colonies: numbers of planters having ſuſtained irreparable loſſes, which unfortunately did but too ſtrongly confirm the freethinkers in their opinion with reſpect to what I advanced upon this head in 1736, when I began my Treatiſe upon Indigo; the confirmation of which may be ſeen p. 61. and the following, where the growing malice of the negroes is diſcuſſed, &c.

relations and friends of the deceaſed are careful that on a particular feſtival or Sunday, prayers ſhall be offered up for the deceaſed, when the countrymen of the defunct are deſired to aſſiſt. Theſe fail not to meet at the rendezvous, when each is obliged to bring ſomething, ſuch as victuals, brandy, molaſſes, &c. Upon their arrival mutual compliments of friendſhip paſs; when they form themſelves into a circle oppoſite the door of the deceaſed; and taking a bottle of brandy, they ſprinkle the threſhold of his door, doubtleſs with the intention of rejoicing his poor ſoul. This ſhort ceremony being over, they kneel with much humility, and repeat, with apparent great devotion, the prayers they know, which are begun by the oldeſt or moſt learned of the company. When this prayer ends, each kiſſes the earth, riſes, and a ſecond ſprinkling takes place. After which, they dance in couples till dinner-time; which repaſt is provided by the friends of the deceaſed, in the ſacrifice of a hog, that they immolate to his manes, and which is quickly anatomized and diſſected with great varaciouſneſs. The remainder of the day paſſes in ſinging and dancing, making contorſions and ſuch like extravagancies, producing a real maſquerade. At length, each retires home. If the maſter does not allow ſtrangers to intermingle, the ceremony is performed among themſelves, and it is impoſſible to diſabuſe them with regard to this ſuperſtition: they would imagine that the ſoul of the deceaſed was ſtudying to torment them if they did not obſerve it: yet I cannot help being of opinion, that their real motive is nothing more than diverſion. With regard to the funeral proceſſion, it is not leſs extravagant: the body is carried along to the hoarſe cadences of two of their countrymen at the head, who ſing, dance, and howl like madmen: they are followed by the bearers, whoſe feet keep time to the mournful accents of this infernal

muſic, that continues to the church-yard, which is ſometimes upwards of a league diſtant.

Every negro who rebels againſt his black overſeer ſhould be ſeverely puniſhed, as he repreſents the manager, who ſhould ſupport him in his rights, not to leſſen his authority, and thereby keep the negroes in perfect obedience.

I ſhall cloſe this work, with another piece of important advice. This is to behave from the beginning in ſuch a manner as to make them underſtand, that you will be inexorable to the intreaties of mercy from thoſe who infringe upon your orders. They will not fail putting you to the teſt, this being their firſt ſtudy; but remain firm, and be rigid in the early part of your function, in order that by knowing you to be ſuch they may not relax; indulgence being the direct road to relaxation, this to diſorder, and at length to the total ruin of all the negroes.

The corruption of the times, or the depravation of manners, has introduced another kind of diſorder which prevails among many ſets of negroes. This is of a very different nature from the others, as the contagion is communicated only by the ſteward to the negroes. The inhabitants of the country will immediately comprehend I mean the intrigues of the managers with the black women; and though this is much the faſhion, I ſhall not paſs over the inconveniencies that frequently ariſe from theſe practices. I do not intend commencing cenſor, or moraliſt upon this occaſion; this I ſhall leave to our paſtors; and though they acquit themſelves with much zeal upon this head, I do not find the leaſt alteration; wherefore I ſhall not attempt to aboliſh it, as I know it would be fruitleſs: but the managers will give me leave to tell them, it is very ſcandalous for them to attach themſelves to the black women, who are under their diſcipline. Hence ariſe diviſions, jealouſies

and

and murmurs among the negroes, which frequently are attended with fatal conſequences. If a ſteward debauches the wife of a negro, he will in revenge debauch the wife of one of his comrades: it is therefore dangerous for the negroes that a ſteward ſhould act in this manner; for they play the ſame game as him, and have no fear of outdoing one another in leaving by turns all the black women who begin to diſguſt them; for they are as little ſcrupulous in this reſpect as they are with regard to pilfering; two vices to which the negroes are equally ſubject, and which require a proportioned curb to ſtop the progreſs, by frequent chaſtiſements. I aſk a ſteward, how he is to ſucceed in this reſpect, if he hath not reſolution ſufficient to avoid a yoke as pernicious to himſelf as it is ſhameful to the planter?

If it were my province to convince a manager of the evil that ariſes to himſelf from ſuch irregularities, I would give a free ſcope to my feeble pen; which might, perhaps, make more impreſſion on him, than all the Chriſtian morals daily enforced by our paſtors upon the occaſion: but it does not belong to me to treat upon ſo ſerious a ſubject; beſides, I ſhould loſe ſight of the object I had in view. I ſhall therefore only recommend him to make his own reflexions upon it, that he may reap ſome advantage from what I have advanced, before he is convinced by fatal experience. He cannot be ignorant, that the leaſt of the evils that accompany this fatal paſſion, is ſhameful indigence, and often a languiſhing and painful life. How many young people, who after reſiding in our iſlands twenty years, have no more improved their fortunes than upon their firſt landing. God forbid I ſhould deſpiſe my countrymen; every one has his foible, and I am more inclined to pity than to cenſure them; but I imagined a few hints of this kind

would be ſerviceable to them, and that they would make proper reflexions thereupon.

The Genius of the Negroes defined, and the Means of guarding againſt their Snares.

Altho' you may not be able to lop the roots of many evils which this ſhameful paſſion engenders; yet you will be able to exerciſe a proper diſcipline over each ſex without diſtinction. Exempted from all blame, you have an entire deſpotiſm over all your negroes; who will ſubmit with blind obedience to your will, and to the puniſhments inflicted upon the guilty, who will never complain: for a negro is ſingular in this reſpect; he knows how to do juſtice to himſelf; and even when he does not own his fault, he is not angry with the perſon who chaſtiſes him, and points his indignation only againſt the author of it: if there be none, or he is ignorant that there is any, he frankly acknowledges that it was his own head that created his misfortunes (the negro's expreſſion when he accuſes himſelf): but amidſt this frankneſs he cannot avoid following his natural evil diſpoſition, and with the appearance of external ſtupidity, he is capable of ſurpaſſing the moſt artful white man in cunning *. You will, doubtleſs, think that I dwell too much upon this natural vicious diſpoſition; but I can proteſt to you, that I do but give the outline, and that if I

* A negro of this kind makes the character and diſpoſition of his maſter, or the perſon who governs him, his ſole ſtudy: it is not aſtoniſhing that we ſhould be ſometimes duped by him, as he knows how to avail himſelf of our weakneſs; and as he abuſes the clemency ſhewn to him, it is not aſtoniſhing he ſhould often be guilty of faults: humanity, which ſhould direct us, has a great ſhare in it; wherefore, however cunning he may be, we are only duped by him becauſe we wink at what he does not chuſe ſhould be obſerved.

were

were to diſplay the malice of a negro in its full extent, Europeans would find it very difficult to conceive how we can make uſe of ſuch kind of people: but we have recourſe to a regular ſteadineſs to keep them in order, otherwiſe it would be impoſſible to make any uſe of them. They are, nevertheleſs, the riches of the country; for we calculate our revenues only by the number of ſlaves of both ſexes, who are employed in our manufactures.

I have always been among the number of thoſe who are inclined towards clemency, without having the leaſt repugnance to chaſtiſe them ſeverely when they were guilty of capital crimes; in which caſe, it would be difficult to ſoften me, as it is abſolutely neceſſary; but I would always have the cauſe known. I am ſenſible there are ſome planters who are too cruel; but if I blame them ſometimes, I cannot help approving of their conduct in certain circumſtances, when I conſider the evil diſpoſition of the negroes, which I am well acquainted with. Think not I ſpeak through prejudice; it is a matter of fact.

Europeans, upon their firſt arrival, would be inclined to believe us barbarians; but they have not been ſix months in the country before they are of a very different opinion, finding by their own experience the neceſſity of a rigorous behaviour towards this ſpecies of men.

The malice of the negroes extends to ſorcery: people of ſenſe laugh at it; the ignorant ſuperſtitiouſly believe it. I am inclined to think that the vanity of the one, and the ſtupidity of the other are equally pernicious. I have ſeen the former ſuffer conſiderable loſſes from their incredulity; and the latter be frequently the dupes to their belief. When the negroes are once convinced of the ſuperſtition of their maſters, there are ſcarce any pains or inconveniences that they will not ſubmit to, to gain confidence with

their

their maſters, that the origin of their maladies ariſe from ſorcery; and under this pretence, they humbly aſk leave to go in ſearch of a particular negro phyſician to obtain a ſpeedy relief. This one, a ſtill greater cheat than the patient, amuſes him for a certain time, at the end of which, he brings the negro back to his maſter, in boaſting of the ſurpriſing cure he has performed, expatiating largely upon the difficulties he had to ſurmount; and which the ſuppoſed-patient fails not to corroborate with all his powers from his mutual intereſt in keeping the ſecret. Wherefore no credit ſhould be given to theſe matters but upon good foundation. It is however certain, that theſe phyſicians have performed cures, which ſurgeons would not undertake: I know not whether there was any deceit in the matter. They are ignorant of the uſe of mercury and antimony in venereal caſes, and they cure perfectly well without friction; they uſe baths, to excite tranſpiration; they have many valuable ſecrets for diſorders incident to the negroes, which are cured by ſimples unknown to any but themſelves: but as they are are all cheats, they frequently abuſe the confidence that is placed in their remedies. I ſhall, however, frankly acknowledge that I am not very credulous with reſpect to the firſt article; yet I have ſeen effects that could not fail convincing me, that they practiſe but too ſucceſsfully their diabolical arts, equally upon animals as their own companions, whom they throw into ſuch a lamentable ſtate, as terminates only with death. I ſhall not undertake to explain the phænomenon, I ſhall leave it to caſuiſts; but I can aver that they ſeldom miſcarry in them *.

* The myſtery was diſcloſed by the confeſſion of the Makandaliſts, who were burnt; and who declared that they uſed ſlow poiſons, and others that were very ſubtile, which carried a man off in leſs than twenty-four hours, when they choſe to diſpatch him ſoon.

They

They have alſo a miraculous talent of ſtealing cattle from parks, in deſpite of the keepers at the gate. In regard to this matter it does not depend upon witchcraft; they uſually have with them ſome companions of fortune, who have the ſecret of amuſing the keepers at the gate, by pretty tales, while the others make breaches at the oppoſite extremity, through which they carry off their prey; and it frequently happens that the keepers themſelves are accomplices: in this caſe they ſhare the ſpoils with the principals, for which they ſeldom eſcape puniſhment, and this is generally the caſe whether they are guilty or not, as they ſhould be anſwerable for the animals they are entruſted with; and one ſhould watch while another ſleeps, and thus reciprocally relieve each other. It is pleaſant to ſee with what ſimplicity they defend themſelves upon theſe occaſions: they are never guilty, though they ingenuouſly acknowledge they ſaw the cattle paſs before their eyes; but by ſome enchantment they were bereft of the power of ſpeech, and rendered motionleſs, whilſt their dogs were petrified: in fine they add, that the charm in breaking threw them into ſuch a profound ſleep, that they could not awake till they heard the negroes going to work. If theſe reaſons can ſatisfy, they get off very eaſy.

END OF THE SECOND AND LAST PART OF THE COMPLETE INDIGO-MAKER.

A

TREATISE

UPON THE

CULTURE OF COFFEE.

A Deſcription of this Tree, and its Manufacture.

IF I wrote as an hiſtorian, it would be neceſſary for me to begin with the origin of Coffee; but this would carry me too far out of my ſphere, and make me repeat what twenty others have already ſaid, upon each other's authority; the truth and falſhood of which make a pleaſant mixture. I believe it will be of little conſequence to thoſe who peruſe theſe memoirs, whether Coffee was firſt produced at the extremity of Arabia, or near the artic pole; or that good father Labat's fabulous goats firſt diſcovered it: this is not the moſt intereſting part of my project; and as my intention is only to be uſeful, I ſhall confine myſelf to pointing out how we attained it, and at what time.

According to the moſt common opinion, we are indebted to the Dutch for the firſt Coffee-trees: they firſt began to cultivate them in Batavia, afterwards at Surinam; and ſome years later the inhabitants of Cayenne followed their example, and ſucceeded beyond their expectations. It was in 1722, in a voyage that M. Delamotte Aigron, then the king's lieutenant at Cayenne, was obliged to make to Surinam, that the planting of Coffee was firſt conceived. He learnt the manner of cultivating the Coffee-tree; and the only difficulty

difficulty conſiſted in obtaining the plants, as the exportation was prohibited on pain of death. He, however, compaſſed his deſign by means of ſome French refugees among the Dutch, and ſucceeded ſo well, that in 1724 and 1725, there were already upwards of ſixty thouſand trees that produced Coffee; and in 1726, it was planted at Martinico: here it owed its origin to two plants ſent from the Royal Garden at Paris, which were a preſent from the Dutch to Lewis XIV. A ſhort time after, it appeared at St. Domingo; for I recollect having ſeen ſome there in 1728; but there were but a few trees planted in the gardens of the virtuoſi; which have been ſince ſo multiplied that there are now whole plantations of it. The inhabitants of Dendon, ſituated about ſeven or eight leagues from the Cape, were the firſt who cultivated it, and have raiſed conſiderable profit from it. A certain Gaſcoon, * a jolly fellow, like moſt of his countrymen, named Dupuits, has made a fine fortune by it in a ſhort time, though he began with only five or ſix negroes. He returned to France about ten years after, leaving his plantation with above one hundred negroes. At preſent there are ſcarce any plantations upon the mountains without being planted with Coffee, in proportion to the number of negroes; and there would be hopes of making fortunes by it, if the preſent dealers had the ſame good luck as the firſt, that is, an increaſe of negroes in proportion as the Coffee growed, long credit having enabled them to pay for the negroes from their own work. At preſent, (this is very different from the year 1753); no negroes are to be had but

* I mention him in particular, being one of the firſt who began to plant Coffee. The fortune he made is to be attributed to the advance of the negroes upon credit, by which double the Coffee may be reared, &c.

with

with ready money, at 15 and 1600 livres a head, one-third down, and four months credit for the remainder, upon good ſecurity; ſo that the planter who begins, muſt be a great œconomiſt to puſh forward.

The ſucceſs of ſome, however, creates an emulation in others, and very probably all the hills will ſoon be covered with Coffee; and then the price muſt neceſſarily fall, and it will not be worth ſelling at ten ſo!s the pound; at leaſt to none but thoſe who are near cities, and have the convenience of their own vehicles. Thoſe who live at a diſtance cannot load a horſe with above one hundred and fifty pounds weight, which, at 10d. amounts to ſeventy-five livres a load; from whence the expences, freight, and commiſſion, at two and a half per cent. being deducted, and the loſs of animals being added, it will eaſily appear, that a fortune cannot eaſily be made this way, even without conſidering the accidents that may happen.

It muſt, however, be allowed that the cultivation of Coffee has its alluring charms—the facility with which it is raiſed, its rapid progreſs, and the few hands required; but when the crop comes in, the planter is frequently diſabuſed. Experience has convinced me of theſe conſequences; which are occaſioned by the poſition of the trees, or the impropriety of the ſoil; for it is an error to ſuppoſe every ſoil is equally fit for it; or, according to P. Labat, the moſt meagre is the beſt ſuited to it. I have always ſeen the fineſt Coffee in the beſt ſoil, which is reaſonable. It alſo happens that the Coffee-root is gnawed by an inſect called a mahocat, which kills the tree. There is no remedy for theſe kind of accidents, as it is too late to apply any, when theſe inſects are viſible; the principal root is damaged, which, however, does not appear till the body begins to decay. Others periſh without any cauſe appearing. I have, however, ſaved a great number, by cutting them about two inches be-

below the place that begins to decay, which is uſually at the extremity of the trunk; and when the part attacked is lopt off, the lower part recovers its vigour, and freſh ſhoots appear at the knot where it was cut; but they ſhould be carefully kept at a proper height.

A ſpecies of inſects hath lately been diſcovered, called a hanneton, the mouth of which is long and pointed, with ſharp ſides; and which made great havock among the coffee. Luckily they made but a ſhort ſtay; during which, they dug into the trunk of the tree, from bottom to top, without its appearing any way damaged: but it broke with the leaſt blaſt of wind, by which they were diſcovered, when a dozen or fifteen were found in each trunk, having each its particular lodge; and they made their way in order to get out at the end, that they might viſit the next tree. They uſually attacked the trees about a year or two old, the ſoft tender wood of theſe being eaſily penetrated. There was no other method to prevent the progreſs of theſe inſects, than by cutting the tree about two inches from the ground, and ſetting fire to the branches; this however retarded the production of the coffee for eighteen months.

It ſhould be obſerved, that coffee planted upon the hills cannot be expected to be of long duration: after three fertile years, a ſterility ſucceeds; and thoſe trees that have eſcaped accidents, to which they are liable, produce very feebly at the extremity of the branches.

The hilly Grounds are but of ſhort Continuance.

This is clearly proved by the fall of the rain waters, which carry with them the ſuperficies of the earth, and by making cavities, impoveriſh it, and render it ſterile: in order to ſupply theſe defects, we are

are obliged to plant a certain number of trees every year: by this wiſe foreſight we ſupport our profit, in proportion to the loſſes, which are inevitable.

Means of preſerving the Earth.

It is eaſy to comprehend, by what I have juſt ſaid, that the ſoil of the mountains does not continue long fruitful; wherefore, to prolong the term, it ſhould be expreſsly forbidden the negroes to pluck any root of a tree that grows upon the ground, which is all interſected with them after being cleared from the wood. This precaution is of great utility for the preſervation of the ground; and by this means the layers have time to grow, and cover with their roots the circumjacent ground, before the others are quite exhauſted; by which means the ſoil is made to produce ſome years longer than it would otherwiſe.

Reaſons why the Ground ſhould not be weeded with a Spade;

Becauſe the ground would be ſo broke, as to admit the entrance of the leaſt fall of rain, and would be exhauſted before the layers could have time to fructify. Thoſe who pretend that the coffee-tree is not of a delicate texture, have not ſeen it after its firſt and ſecond production*: it is true, that before this it grows aſtoniſhingly quick and beautiful, even in a bad ſoil; but the quantity of fruit that it produces overwhelms it, if it be not ſeconded with a good ſoil, which may afford it a proper juice, or ſuch as may nouriſh it without altering the root.

* The ſecond produce often determines its fate; if it reſiſts this it is ſafe: but it begins to decline at the third, by the exceſs of the preceding produce, which hath enervated it. It brings forth very little the next year, and thereby recovers its vigour.

The

The Secret communicated by Father Labat.

He acquaints us with an admirable ſecret to prevent this accident; but I believe he will not have many advocates. He adviſes the lopping of the flowers, in order to eaſe the layers of the coffee. But where is the planter who would retrench his profit, and be ſtill dubious about the ſucceſs of the other half. It would be even imprudent in him to anticipate the effects of the ſtormy weather; as a great quantity of fruit is beat down before it is a fourth part mature.

Means of preſerving the Layers of Coffee.

I imagine the moſt efficacious method to be, planting the layers of the coffee at ſuch a diſtance as is proportioned to the quality of the ſoil they are ſet in; in an indifferent ſoil about three feet only, (and perhaps two and a half would be better); in a deep earth, four feet; and in the beſt ſoil, five. I ſhall account for this immediately; and I doubt not meeting with approbation. The root being thus circumſcribed, all the body of the tree muſt neceſſarily receive more nouriſhment; the ſap having but a ſhort way to riſe, theſe branches cannot extend beyond it, and become a wood, almoſt as ſtrong as the trunk itſelf. The tree produces leſs fruit, and the branches being diveſted of pith, are able to ſupport the little they produce *.

Manner of ſtopping the Growth of Coffee-trees.

Each planter has his peculiar method of ſtopping coffee. Some are of opinion, that it ſhould be allowed to produce its firſt crop; which is, how-

* Since I wrote theſe memoirs, I have made the experiment with all the ſucceſs I expected.

ever, a miſtake. For my part, when a Coffee-tree hath attained its proper height, I break off the extremity of the branch, which is very tender; this prevents its growing higher, and allows the branches to extend in length and breadth, and multiply their ſcions: this operation makes a fine roſe come upon the tree; diſincumbered of a ſuperfluous burthen, it is not overcharged; conſequently the fruits are better nouriſhed, and leſs ſubject to run; and even another advantage reſults from it, this is, the convenience with which they are gathered, and without damaging the branches; which happens to thoſe that are unconſtrained in their growth, and whoſe trunks are ſo feeble for want of ſubſtance, that the weight alone of their fruit weighs down the ſtocks; and being overwhelmed with their own burthen, periſh at a time they promiſed the moſt.

The Decline of the Tree.

In proportion as the tree advances in age, its abundance diminiſhes, and the coffee is more beautiful and more eſtimable: it may be imagined that it becomes larger, becauſe it produces but little: yet the caſe is juſt oppoſite; it is quite ſmall, and in this alone its quality conſiſts; and that root, which at its ſecond crop produced two pounds of Coffee, will with difficulty in its fifth produce a quarter of a pound: after which it produces only every other year, the firſt very little, and the next ſomething more. Upon this foundation it is eaſy to conceive, that it is very much our intereſt to increaſe the number every year, to prevent any ſcarcity.

The Coffee-tree requires new Woods.

It is alſo neceſſary that it ſhould be planted in a virgin ſoil, or as we expreſs it in our iſlands in *new woods*:

woods: it will be only loſing time to plant it in ground that has produced before: not that it does not produce in the end; but it is certain that it will periſh after its firſt crop, or at fartheſt after the ſecond. This appears very oppoſite to the principles of Father Labat: but he only means from the firſt cultivation of the Coffee; for he had no experience, whereby he could form any judgment. One may eaſily be the dupe in this reſpect, as in ſome grounds it may ſucceed; and when it does not produce any thing, the root will be fine, but it will be exhauſted from its firſt production.

The Difference of the Sorts of Martinico and St. Domingo Coffee.

Father Labat moreover ſpeaks of the ſort of Martinique, and I mean that of St. Domingo; the firſt may perhaps be preferable to the latter, and in all appearance this muſt be the caſe. If our mountains of St. Domingo were cleared, it is very certain they would many years ſince have been exhauſted, as experience proves; for if at the end of five or ſix years we would renew a layer of Coffee in the ſame place, where ſome had before been planted, we ſhould certainly loſe both our time and our pains: all that could be planted with ſucceſs would be caſſada, or the ground converted into bad ſavannahs: this is all that could be done upon the mountains.

The Martinico Coffee preferable to that of St. Domingo.

The ſoil of Martinico being, doubtleſs, preferable to that of St. Domingo*, it is not aſtoniſhing that the

* There are certain diſtricts in the mountains that are very ſtony, and produce lime: theſe grounds reſemble the ſoil

the Coffee of that iſland ſhould be finer and more in eſteem: it probably receives a nutriment that is ſuited to it, as it is upon a par with that of Mocha; and if there were no other than the ſeniority of the date of the trees, I would readily allow the ſuperiority to the Martinico Coffee, which it now poſſeſſes by right. Perhaps alſo the care taken by the inhabitants of Martinico to cultivate and dry, may alſo greatly contribute. In this reſpect our planters are much to be blamed; for provided it does but ſell, they give themſelves no farther trouble. I am ſenſible this is not the way of paying my court to them, or obtaining their approbation; but why are they culpable? Provided I meet with the approbation of thoſe who think well, I am careleſs of the cenſure of the reſt: there are, therefore, none but thoſe who are conſcious of their neglect that will be offended; and if this little liberty could make any impreſſion on them, and they ſhould, from a laudable pique, open their eyes with reſpect to their own indolence, I ſhould applaud myſelf: there are ſome people who require the truth to be ſpoken.

Remarkable Qualities of the Planters.

It muſt, however, be allowed that for the generality of the planters, they are very laborious, enterprizing, generous, and magnificent, and would be very ſorry their neighbours ſhould ſurpaſs them in this

ſoil of Martinico: the earth is very deep, as good at the bottom as upon the ſurface, which renders it very durable: but this kind of ground is not very common, except upon the ſlopes fronting the ſea: far beyond the ſummit of the hills this lime-rock is no longer met with, but by accident in ſome floods, and is, properly ſpeaking, nothing more than a tartar formed by the current of the water.

point.

point. I will not pretend to ſay that vanity has no ſhare in this emulation; and that the apparent negligence is the mere effect of their inability. Deſtitute of the means and powers to diſpoſe properly their manufacture, many inhabitants never increaſe their revenue; yet I am perſuaded that in ſome years this manufacture will be brought to great perfection: we already perceive the effects in thoſe that are eaſy in their affairs, who are ſtriving to out-do each other in the commodiouſneſs and ſplendour of their buildings, their mills, and glacis's; and ſpare nothing that may contribute to bring this manufacture to perfection.

The Mocha Coffee has always had the preference; and this is very natural, it being the firſt we were acquainted with, and to which ours is indebted for its origin; thirty years ago there was no other. That of Martinico ſucceeded, and connoiſſeurs ſay it is better: this is not aſtoniſhing; the ſea has not ſo much time to ſpoil it as the Mocha, which cannot reach Europe in leſs than a year; and it muſt remain another twelvemonth in the company's magazines. When this berry dries, it loſes its flavour, and its quality greatly diminiſhes; though it may be ſaid that it ſhould be old to be good, and which I ſhall allow for a moment; but it ſhould acquire this age in a very dry place, and not upon that ſaline element, which renders every thing moiſt that is carried by it, and which penetrates into the cloſeſt cheſts, and has ſtrength enough to tarniſh gold and ſilver lace, though incloſed with cotton. Can Coffee be thought leſs ſuſceptible of its impreſſion? I have ſeen the dew that has fallen in a ſingle night make it as white as ſnow, which is ſufficient to deprive it of its oily quality, in which all its flavour and merit conſiſts.

Cayenne * Coffee is deſpiſed, and that of St. Domingo has not yet attained any degree of fame; is this aſtoniſhing? The produce of every plantation is different; does this not prove that it depends chiefly upon the care that is beſtowed? There are ſeveral who raiſe Coffee, and cannot ſhelter it from the weather, not having yet been able or willing to make the neceſſary diſpoſitions. Their Coffee is uſually in the firſt crop very large, very ſubject to whiten when it is not well dried and preſerved from moiſture. They are not ſufficiently attentive to prevent its being moiſt during the time that it is expoſed to the ſun, for whatever humidity it contracts, renders it tough and ſpongy like cork. Whenever theſe accidents are prevented, there is great reaſon to believe it may be brought to as great a degree of perfection at St. Domingo as at Martinique.

Why ſhould this be queſtioned? Our firſt indigos and ſugars were defective, and we have found means to perfect them. Theſe manufactures were certainly more difficult than Coffee, in which there are but three principal points to be obſerved which form the baſis, and which the moſt ignorant may execute as well as the moſt ſkilful.

The principal Objects to be obſerved to have good Coffee.

The firſt is to gather it when very mature †, to dry it well, to prevent its being wet or contracting any humidity after it is dry. This contains the whole myſtery: if after theſe precautions, any in-

* It was in the beginning deſpiſed; but it is at preſent in great eſteem; and ours will ſucceed as well in the end.

† Care ſhould, however, be taken not to let it ripen too much upon the ground, as in this caſe the pellicle is apt to ſtick to the berries, which diminiſhes the price, though its intrinſic value is always the ſame.

ferior

ferior Coffee ſhould be found, you may boldly conclude that theſe were ſo many abortions, which by being over-dried or by an exceſſive production which the ſet could not nouriſh, were deprived of ſubſtance, which is the only cauſe of the berries being falſe; and from the ſame cauſe it happens, when the weeds ſtifle the ſets, their nouriſhment is abſorbed. Theſe proofs are more than ſufficient to convince you, that we are making a progreſs towards perfection, in as much as the climate and the ſoil does not prevent us, and which I am inclined will have no effect; a little experience and a good deal of care will produce the object deſired.

The Reaſon why St. Domingo Coffee is deſpiſed.

The principal cauſe why the St. Domingo Coffee has fallen into diſrepute was, that during the war which began in 1744, and ended in 1748, when every planter endeavoured to avail himſelf of the ſailing of the fleet in order to ſell his manufactures, a general confuſion enſued, and particularly with regard to Coffee Every one ſtrove to dry his Coffee in a hurry, to be in time for the ſhips; many uſed ſtoves for expedition. So that ſometimes it was expoſed to ſale in leſs than a fortnight after it was gathered. It is not aſtoniſhing that ſuch green, ill-manufactured Coffee ſhould turn white in the voyage. But at preſent, when we give it ſix months before we begin to beat it, there is time enough for it to harden and even ſhrink to nothing, if it is of a mean quality; in which caſe, it is neceſſary the periſhed grain ſhould be carefully picked out.

Policy of the Dutch.

The Hollanders at Surinam had by refined policy promulgated, that they baked their Coffee before they expoſed it to ſale, that it might not be raiſed any where elſe. This was a popular error that ſo far prevailed, as to prevent any one planting it. But M. De la Motte Aigron having, as I obſerved, found means to procure ſome that was freſh gathered, he ſurmounted all the difficulties that ſeemed to lie in his way. It was alſo imagined, that Coffee dried by the ſun would be ſubject to the like inconveniences; this was alſo another miſtake. I have ſeen ſome myſelf which had been gathered for upwards of ſix months, which grew perfectly well. I only obſerved the precaution of ſteeping it, and at the end of five or ſix days, its ſhoot appeared the length of two lines in the water, wherein I had immerſed it. At preſent we are under no apprehenſions with reſpect to planting it; the ſhoots multiply ſo faſt, that we are obliged to lop them under every tree, their too great proximity being pernicious.

The Manner of planting Coffee.

The manner of planting Coffee is very ſimple; but which, nevertheleſs, requires attention: the ground ſhould be very well cleanſed, and dig all the holes beforehand: this precaution is very neceſſary; for if any rain ſhould fall, it penetrates the more eaſily, and in ſome cavities the water will remain, which produces a very happy effect, in maintaining the freſhneſs of this young plant, which has thereby time to form freſh roots, before the heat of the ſun makes any impreſſion. I contribute to the ſupport of this freſhneſs, by a little mortar of clear clay, in which I place the fibres of the layer; by this means they

they eaſily take root and the plant and the leaves being naturally of a ſtrong conſiſtency, reſiſt the heat for a long time; and being ſeconded by this precaution, very few, if any, periſh. Add to this, that in taking up the layers to plant them, I dig up the ground with a hoe, whereby the fibres remain entire, and the layers are in their natural ſtate; for it is certain that Coffee pulled up with the hand will twiſted or bent, and that the greater part of its fibres would remain in the ground, which it requires the moſt.

At what Diſtance Coffee is planted; and different Sentiments thereon.

Various are the ſentiments upon this head. Thoſe, however, who, in my opinion, plant too near, maintain that it preſerves the freſhneſs that is ſo neceſſary, as at the end of the year there is a little foreſt which ſupports this ſame freſhneſs, and prevents the weeds from encreaſing too much, and that thereby the trees are more eaſily ſupported. They alſo add, that they have the double quantity of Coffee, which cannot be denied. But the ſequel is not ſo favourable; this is very well as far as the firſt crop: the trees are then ſo confined, that their branches interſect each other, and having no means of extending themſelves, they produce a very indifferent quantity of fruit, and ſometimes nothing but the ſtock produces any; ſo that four layers of Coffee will ſcarce produce what a ſingle one would, unconfined. Wherefore a thouſand of theſe trees are more advantageous than four thouſand of the others. Add to this the inconvenience of the dew, which obliges the negroes to be wet from the feet to the ſtomach: this is unavoidable.

Whence I conclude that the rows ſhould be ſix feet diſtant, and the trees five from each other:

this is meant for an indifferent ſoil. It is true that in this ſtate they require more culture: but this expence is counterbalanced by many advantages. In the firſt place, many kinds of vegetables are raiſed the three firſt years: ſecondly, the tree becomes finer and brings forth four-fold, the branches having full liberty of extenſion; in a word, the rows having a convenient ſpace, the negroes are not obliged to wet themſelves in gathering.

Depth of the Holes.

The depth of the holes ſhould not exceed ſix or ſeven inches, and the height of the plant eighteen: thoſe which are leſs are ſubject to a year's retardment; thoſe which are larger do not ſucceed. Before they are fixed in the holes, the extremity of the root is carefully cut, which always endeavours to penetrate; ſo that if rock or clay is near the root, it would force its way, and the tree periſhes, when it is judged out of danger.

Another Method of digging the Holes.

There are ſome planters who dig the holes with a louchêt *, and give their reaſons for adopting this method; though there are objections to it: for inſtance, it is certain that the earth upon our hills is not above ten inches deep, often leſs; now, if the holes are dug eighteen inches deep, you muſt meet with the rock or clay: hence it muſt follow, that when the root of the tree penetrates into this clay,

* A louchêt is an inſtrument invented in the French Iſlands, made of iron, about a foot in length, the upper extremity of which is round, and bored, in which there is a wooden handle. It is between three and four feet in length: the bottom is flat and about four or five inches wide, with a ſharp edge at the extremity.

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the layer muſt periſh for want of a proper ſoil. It will be anſwered, that the holes being filled with good earth, it will always find ſix or eight inches more than in its natural ſtate, which cannot be denied; but in digging this hole, another inconvenience ariſes, which is the forming of a kind of earthen veſſel, where the waters muſt neceſſarily remain, when the rains are frequent, which cannot avoid hurting the Coffee-layer. Add to this, that the roots of all trees in this country have a natural propenſity to follow the ſuperficies of the earth. It will then be granted, that in planting them ſix or ſeven inches deep, the roots cannot fail following the good earth, and receiving as much water as is neceſſary, and the ſuperfluity will filterate acroſs the ground more conveniently, when not confined on either ſide.

The Seaſon for planting Coffee.

The planter ſhould chuſe a rainy ſeaſon to ſucceed, as the plant ſhould be well watered. About All-ſaints-day is the wetteſt ſeaſon, the north winds being moſt frequent; the planter ſhould therefore avail himſelf of them, as the Coffee ſhould receive the rain a few days after being planted: but as the works of a plantation can only be carried on gradually, there are ſeveral months in the year fit for this operation, when the ſeaſon is rainy: wherefore you may continue planting from All-ſaints-day till the month of May, if you meet with ground that is properly prepared; for it cannot all be ſo at the ſame time; thoſe that are laſt planted grow quicker than the others, as they are planted in the height of ſpring, when the vegetation is ſtronger than at any other time; whereas in winter it is ſterile on account of the great quantity of rain, which renders it too cold for the growth of the plants; but though it ſhould not vegetate in three

or four months, when it is planted in winter, you may be at leaſt certain that the plantation will ſucceed better than in ſpring, when it muſt be repeated ſeveral times; and hence it is that the trees do not produce all together.

Vegetables that may be planted in the Coffee walks, during its Growth.

During the growth of the tree the land does not remain uncultivated; on the contrary a great benefit ariſes to the planter as it may produce peas, maize, and rice, which afford plentiful crops during the two firſt years, particularly when the Coffee-trees are planted at a proper diſtance; but you ſhould obſerve to plant no peas that require ſticks, and to keep them from the Coffee-tree, which they might hurt, as is obſerved in rice; and a ſingle row only ſhould be placed between thoſe of the Coffee. Theſe are the only vegetables that can reaſonably be planted; thoſe who plant others do not underſtand their intereſt. There are ſome who plant a row of caſſada between two; this may not be pernicious; but when it is gathered, it cannot be doubted that the root of the caſſada comes ſo near that of the Coffee, that the one cannot be plucked without hurting the other. Beſides, there is another inconvenience worſe than this, which is, that this ground being thus dug up, is carried away by the leaſt ſhower of rain, and exhauſted at the time the tree begins to fructify. I do not ſpeak of thoſe who plant potatoes, as this muſt ariſe from madneſs or want of experience.

Good Father Labat had certainly conſulted a planter of this laſt claſs, when he ſays that Coffee grows in every ſoil, and that it does not hurt the graſs: as to this laſt aſſertion I agree with him; but that the graſs does not ſpoil the Coffee, I cannot agree to.

I aſk,

I aſk, how can the Coffee-tree receive that ſalutary nouriſhment communicated by the rains, ſurrounded with a turf, upon which the water only glides, and which can ſcarce be penetrated four inches deep, by a ſucceſſive rain of eight days: what nouriſhment can it receive from it?

This tree grows quick enough when planted in good grounds, and care is taken to keep it from weeds, which is abſolutely neceſſary in ſo warm a climate, where they grow in plenty, though only watered by the dew, and that even in the freſheſt ground.

Deſcription of the Tree.

There is ſomething delightful in the appearance of a Coffee-tree, of eighteen months or two years old; you then ſee it in all its vigour: the leaves are of a lively deep green, very cloſe, a little bent, and indented round about: the tree is buſhy, and reſembles the laurel; it naturally grows very round, and its branches ſhoot regularly from top to bottom, diminiſhing gradually towards the ſtock, and form a very fine pyramid: theſe branches iſſue from the trunk two by two, oppoſite to each other; the firſt appear about a foot above the ground, when the tree is formed, and are ſucceeded by the others at about three inches diſtance; but which approach nearer, in proportion as the tree increaſes in age, and the branches increaſe in thickneſs in the ſame degree: but the regularity of its figure is loſt as ſoon as the growth ceaſes, when the branches at the top extend themſelves like the lower ones, and are furniſhed with ſcions, (which in our country-phraſe are called geeſe-feet), that all produce ſucceſſively, but are not at firſt a foot long; this is to be underſtood of the firſt year of their growth; but they increaſe every year, and thereby compenſate for

the ſterility of the firſt branches; for it is to be obſerved that the tree will not produce two years ſucceſſively on the ſame branch, but it fructifies immediately after thoſe which are gathered to the extremity of the tree, and new layers uſually multiply every year, which is a remarkable circumſtance with reſpect to its produce. The leaves iſſue two by two from each knot of the branch; and it is in theſe knots that the fruit forms itſelf, at the end of a ſmall ſtalk, as grapes upon the vine; and though the knots are very cloſe to one another, you may ſometimes reckon from fifteen to twenty fruits; and there are almoſt as many knots to each branch; ſo that when the tree bloſſoms, the flowers are ſo cloſe to each other, that each branch might form a beautiful garland. Nothing in my opinion is ſo gratifying to the eye, as to ſee fifty thouſand layers of Coffee all blooming at once: there you ſee in a very deep green, the whiteneſs of ſnow, which dazzles the ſight, and emits a moſt fragrant odour. There is no ſeaſon in America, which reminds us more of the European ſpring, or more ſtrongly reſembles it, than when theſe ſmall trees are in bloſom—A moſt delicious ſituation! charming alleys that would furniſh a poet with ideas of Elyſium.

It alſo bloſſoms in this agreeable ſeaſon, that is to ſay, in March and April; but the young Coffee-trees of two years ſtanding bloom ſometimes at ſix different periods in the year, in proportion as they grow, and the weather is favourable; every month the bloſſoms renew.

The Coffee-bloſſom.

The Coffee-bloſſom is a little white ſtar, interſected in five parts, each ſeparation being furniſhed with petala of the ſame colour, and another in the middle, that terminates in a fork, which remains a long while

while close to the fruit; the bloſſom remains only forty-eight hours; after which it begins to fade; to this bloſſom the fruit ſucceeds.

The Figure of the Fruit.

The figure of the fruit reſembles that of the olive, till ſuch time as it has acquired its full ſize: in proportion as it approaches to maturity, the colour changes from green to a pale yellow: to this ſucceeds a fine carnation red, when it reſembles an oblong cherry: its fleſh is a kind of pulp of an inſipid flavour, the aſtringent warm qualities of which prevent its being of any uſe; it even provokes a flux of blood.

To this pulp ſucceed two little twin peas, united together, and covered with a ſtrong parchment, under which is a fine pelicle covering for each of the two beans. Here the admirable ſecrets of nature are diſplayed; this indulgent mother, by this ſagacious foreſight, prevents the injuries of the air, from which they ſhould neceſſarily be defended, as they require nothing more than a ſingle night's dew to evaporate all their oil, in which all the taſte and quality conſiſt.

It cannot be perceived that a tree is overcharged above a month or two before the fruit is ripe: that fine verdure then changes its colour; all the leaves turn yellow, and ſeem to announce its languid ſtate: it appears overwhelmed with its own weight, and intimates that it requires relief: this, in fact, is what ſhould not be neglected as ſoon as the fruit begins to redden; and be careful to lop the ſuperfluous branches, which puſh forth very briſkly, and produce a number of ſcions, from which it ſhould be relieved: every time that weeding takes place, this ſhould not be omitted, in leaving nothing but the mother-

ſtock; by this means the layer becomes vigorous, and thrives infinitely better.

In proportion as it is relieved from its fruit, it ſeems to regenerate, and acquire freſh vigour: it is chiefly at this time that it requires ſprinkling ſhowers, Coffee requiring much humidity, and a ſoil that is always freſh *; whence it is, that it will not ſucceed upon a plain, where rains are ſcarce; and conſequently nothing but hilly grounds are proper for it, particularly thoſe that are freſh cleared, and where there is plenty of rain: but this very rain that is ſo ſalutary to the Coffee-tree, has two effects that are very oppoſite; as by procuring it the aſſiſtance which the mountains require, theſe rains become deſtructive at the ſame time to thoſe grounds which they fructify, in gradually waſhing them away; and I am of opinion that thirty years hence, poſterity will be much puzzled to find land to cultivate, for the mountains will then be greatly exhauſted. But why ſhould we make ourſelves unhappy about futurity—a futurity ſo very diſtant.—Will Providence, who attends to the care of the meaneſt reptile, ever forget her maſter-piece?

Coffee never ripens all together.

Its fruit never comes to maturity all at once, and in this reſpect we are happy; for otherwiſe we ſhould loſe a great part of our revenues, as the crops take up one-fourth of the year. This defect, if it may be ſo called, ariſes from the tree bloſſoming at various ſea-

* If Coffee ſhould want rain the two laſt months before the crop, it is very liable to be exhauſted, and the tree is in great danger of periſhing. The quantity of fruit abſorbs a great part of the ſubſtance of the layers, and the ſap being very ſparingly diſtributed, the fruit is either parched, or rendered abortive; which happened in the year 1753, when I wrote theſe memoirs.

ſons,

ſons, and the fruits being extremely cloſe together; one preſſes ſo much upon the other, that it is neceſſary ſome ſhould be gathered, that thoſe which are too much ſtreightened for room ſhould have full liberty. Whence it is that we have five or ſix which all together amount but to one, as they immediately follow each other without any alternative, even without its being poſſible to avoid a conſiderable loſs, whatever vigilance may be exerted: for five or ſix days after, it does not appear that any has been gathered; and the ſame layer of Coffee from which a baſket of fruit has been taken, appears as full as ever.

At what Seaſon Coffee ſhould be gathered.

Its maturity is manifeſted by the redneſs of its fruit turning brown; this is uſually towards the latter end of September; when our vintage takes place, and continues inceſſantly till the end of the year: but when the tree is at its firſt and ſecond crop, you may begin from the month of July; in which caſe there is an interval of ſome weeks, which is employed in cleaning the plantation; but in the height of the crop a moment cannot be ſpared without conſiderable loſs. The negroes who are employed have each a baſket, nearly like our vintagers, in which they caſt the Coffee: as ſoon as the baſket is full, it is emptied into a larger baſket, with which each negro is provided, and which contains his load: theſe are uſed to carry Coffee to the mill. The negroes are inſtructed to cut nothing but the fruit, and to leave the ſtem of the fruit ſticking to the branches, ſo as not to carry off any of the bark, which would be pernicious to the tree.

Three Species of inferior Coffee.

There are three ſpecies of inferior Coffee, which ſhould not be blended together, otherwiſe much time

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is required to ſeparate the good from the bad. The firſt is that which is premature for want of rain, or over-heated, and which would ſooner dry upon the tree than redden: this muſt be gathered when it begins to turn yellow, and ſpotted; it is very ſubject to whiten, being deprived of its juice; wherefore it ſhould not be mixed with the good. There is another kind of heated Coffee worſe than the former, which dries upon the tree before it has attained half its degree of maturity, by an exceſſive production which the tree cannot bring to perfection, and which often renders it liable to periſh: this often happens to thoſe layers of Coffee which are allowed to grow at their liberty; their branches being filled with gum have not ſtrength to ſupport the weight of their fruit; nor is the ſap capable of ſupplying their wants: we call theſe *cracros**. There is alſo a third ſort, which is called the ſcum: this is diſcovered only after the Coffee has paſs'd thro' the mill. This is a falſe Coffee which floats upon the water; and hence its name is derived. As all theſe are liable to be of a bad quality, they are dried ſeparately, in order to try which is good: but according to the ſaying, "The profit is not worth the trouble."

The Diſpoſition of the Mill-caſe.

After the baſkets are filled, each negro carries his own, and empties it in partitions in the form of trunks, by the ſide of the houſe, which contain as much Coffee, or more, than the negroes can gather in a day. At night, after prayers are ſaid, a diſpoſition is made of ſuch a number of negroes as are neceſſary for the

* The *cracros* are ſo named from their reſemblance to the palmite berries. As ſoon as I perceive them, I lop them off, to prevent their deſtroying the branches.

mill,

mill, which is generally ſeven, who ſhould be relieved every night by an equal number, whilſt the others are at their houſes to prepare food for theſe; ſo that when the work is done, they find their meal ready; this is the uſual department of the women: by this means no one has any reaſon to complain, and the work goes on regularly: in leſs than an hour all the day's crop has paſſed the mill, the particulars of which are as follow:

The Manner of milling Coffee.

Two negroes are appointed to turn the mill on the ſide of the great roller, and another at the little one; the largeſt has two handles, and the little roller but one: a fourth negro is placed at the top of the hopper to furniſh the mill, and ſupply the Coffee in proportion as the mill ſwallows it: there is alſo a fifth before the mill, who receives the cherries * that fall upon the ground, which he gathers together with a rake, as they muſt go through a ſecond time, to purge them of the dregs, which eſcaped in the firſt preſſure: the other two negroes are employed, the one in emptying the Coffee into the hopper, whilſt the other fills the porter's baſket: theſe from time to time relieve thoſe who work at the great roller, and who alternately ſucceed theſe.

Coffee is naturally ſurrounded with a glutinous juice, which with little preſſure is eaſily removed: this is the effect produced by the rollers; after which the cherries and the Coffee fall upon a ſcreen made of braſs wire, with maſhes, proportioned to the ſize of the Coffee, which, regulated by the motion of the ſcreen, and its own glutinous texture, paſſes through the ſieve; whilſt the ſame motion, ſeconded by a gentle ſlope of the ſieve,

* Probably ſo called from their reſemblance to cherries, when the Coffee-fruit is entire.

drives

drives before it the cherries which are too large to go through, and ſucceſſively fall upon the ſmall roller; and having paſſed both, fall at the bottom of the mill by the motion of the little ſieve, with which the little roller is alſo provided.

Neceſſary Remarks.

After ſome turns of the mill, the Coffee ſhould be viſited, to know if it has attained its deſired point; being too much preſſed the Coffee breaks; this is obſerved by its parchment, which riſes in ſcales, which is a certain ſign that the roller approaches too near the teeth of the mutable piece: in this caſe you muſt give it an opening, by means of the wedges that are at the extremity of that which moves, as they ſerve to tighten or ſlacken the mill, as occaſion requires; and this ſhould be carefully attended to every time the mill is ſerved, as the Coffee is not always of an equal ſize. When the fixed point is attained, it ſhould continue working till the receiver of the mill is filled; it is then ſtopt to empty the contents into baſons, barrels, &c. after which, the cherries are ground a ſecond time, to clean them ſtill more when a little door is opened oppoſite to the mill, thro' which they paſs in falling, and are afterwards removed by the negroes, to be out of the way.

Thus the Coffee is left in the baſon all night, whereby it the more eaſily ſeparates from the gum, which makes it waſh better. This operation is performed by moon or torch-light, an hour or two before day-break. The mill-houſe ſhould be erected near a piece of water, to avoid a multiplicity of work: the baſon ſhould be made of ſtone when convenient; in which a rake is ſtirred about to remove the glue; others make uſe of a kind of trough; and others baſkets,

kets, which have the ſame effect, except the inconvenience of being obliged often to change them.

Methods to prevent the Negroes being attacked by many Diſorders.

As we are intereſted in the preſervation of our Negroes, and in their enjoying a vigorous ſtate of health; as far as lies in our power we ſhould be careful to preſerve them from the injuries of the air. The ſeaſons of the crop are very rainy, and much dew falls; hence it follows that every layer of Coffee is quite wet till eight or nine o'clock. Now, it is certain that the negroes, who begin their work at five in the morning, muſt every day be as wet as ducks, which cannot fail to create many fatal diſorders, the conſequences of which may be very ſerious. To prevent theſe kinds of inconveniencies, we carefully provide both the men and women with a good great coat of coarſe cloth, which lappel over the ſtomach; from theſe the water runs without penetrating; this is a ſpecific againſt colds and fluxions, to which the negroes are liable without this precaution. It is the ſame with reſpect to the hard work at the mill, when they are ſo hot, and in ſuch a ſtate of perſpiration, that they have recourſe to the firſt rivulet to drink; which is ſufficient to bring on an immediate fluxion of the ſtomach. To prevent this, give them a large glaſs of the country brandy, of which they are very fond; after which, they would not upon any conſideration drink water to carry off the taſte of this agreeable liquor, and which in theſe caſes is very uſeful.

When we are engaged in the harveſt, we ſtand in need of all our people, as there never can be too many; the deficiency of a ſingle negro for a fortnight, will make the difference of twelve barrels of Coffee, in the cherry, which may probably produce about two hundred

dred pounds of Coffee. The abſence of ſeveral may from this be calculated. Coffee does not wait our convenience for attaining maturity; it always goes on, rain beats it down, currents carry it away, whereby ſo much is loſt. Wherefore, we ſhould profit of thoſe precious moments and not neglect the negroes in ſuch a ſituation, or miſapply this time; on the contrary, half the number of the houſe ſervants ſhould be retrenched. When once the Coffee is in the warehouſe, it is then ſecure; whilſt upon the tree it is ever in danger; and therefore every prudent planter, who underſtands his own intereſt, avoids every thing that may interrupt the forwarding the crop.

Deſcription of the Glacis.

The glacis is a ſtone work raiſed about ſix inches above the ſurface of the earth, with borders round it of the ſame height, in which there are holes at equal diſtances, that the water may drain off: their ſize is unlimited, as they ſhould be proportioned to the quantity of Coffee the planter raiſes; ſo that they are of different ſizes, ſome 100 feet ſquare, others leſs. Having paved it at the bottom, it is well plaiſtered over, ſo as to appear all of a piece, except the partitions that are neceſſary, to prevent the accidents that too much rain might occaſion, by carrying away in an inſtant all the Coffee depoſited; the currents of water are limited by means of theſe compartments, which ſtop their rapidity, the water having time to run off by the vent-holes of each trench, gradually as it is received, without having time to form any current, and to promote the evacuation, this glacis has a ſmall declivity, which propels the water toward the vent holes without any violence.

It is upon this glacis that the Coffee is expoſed to dry, care being taken to ſtir it frequently, to haſten

haſten the effect: three or four days ſun-ſhine is ſufficient, if care be taken to ſhelter it at night from the dew; after this it is put it in the warehouſe; whence it is taken only to be bruiſed: this is called Coffee dried in parchment.

There is another method of drying it, which appears more expeditious, but is liable to many inconveniences, as I ſhall notice when occaſion offers; this is drying it in the cherries. Though I am no advocate for this method, I will not condemn it in others, as it is frequently done through neceſſity. Thoſe who imagine it is more expeditious are miſtaken: it is true it requires neither mill nor millers; as ſoon as it is gathered it is thrown upon the glacis, where it remains till it is completely dry, without any danger from rain: but by this method it is a long while drying, and liable to various accidents: being inceſſantly expoſed to the inclemency of the weather, it muſt neceſſarily happen that in a quantity ſome muſt dry very ſlowly, being covered with others, notwithſtanding all the precaution that can be taken to ſtir them; and if they be not wet in the day-time, they cannot avoid being ſo at night: and by dint of ſtirring them, many are parted from their cherries, and ſuch cannot fail whitening whilſt other turn black; by this means the profit is greatly diminiſhed, and much time is loſt that might be uſefully employed in the plantation.

It ſhould alſo be obſerved, that this Coffee requires being dried twice as much as the other, as the cherry always retains a certain ſalt which renders it moiſt from the leaſt humidity, and from which it is difficult to guard it in a country like our mountains, where nitre is very plentiful, and fogs very frequent; if this matter is not attended to, the Coffee runs great riſk of being heated to a degree of rotting. To pre-

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vent this accident, it is neceſſary to examine it frequently, and if the leaſt heat is perceived, you ſhould not heſitate putting it into the ſun. It muſt be very diſagreeable to have the glacis covered with coffee in ſuch a ſituation; as it muſt be removed to make place for more. Such are the inconveniences that you are expoſed to by drying it in the cherry; whereas that which is dried in its parchment, after being waſhed, will keep many years in the ſame ſtate, as the water purges it of its glutinous liquid, and is no way liably to change, if care is taken to preſerve it from being damp, as it is very ſuſceptible of impreſſion from moiſture.

As to the advantage that many fancy they reap from drying it in the cherry, ſuppoſing there is nothing more to do than gathering it and placing it upon the glacis, I beg they will pay ſome attention to the time required in bruiſing it, and alſo the time that is loſt in cleaning and culling it; and I believe they will agree with me, that ſo far from its being a method of advancing, it is the means of prolonging the work, as I ſhall ſooner have diſpatched three wheel-barrows of Coffee dried in parchment, than one dried in the cherry.

The proper Time for bruiſing the Coffee.

The crop ſhould be over before this operation takes place. The works follow ſucceſſively each other, and a planter ſhould know how to divide his time, by which means every thing is in order; whence ariſes that ſome planters do more work with a few hands, than others with a great many, as the latter undertake too much at once: and all things ſhould go on progreſſively; upon this principle the Coffee ſhould not be bruiſed till all is got in, unleſs neceſſity ſhould compel it, or there ſhould be ſome interval in the gathering;

gathering; in this caſe it may be turned to account; for ſometimes the firſt Coffees are the fineſt in appearance, as they are not ſo long ſubject to accidents; but nothing ſhould be omitted to dry it well, and this care ſhould be redoubled when it is to be bruiſed, for new Coffee is very apt to change, not having had ſufficient time to harden; it is then of a fine tranſparent green, which may deceive the beſt judge: ſo that though it appear ever ſo dry, I adviſe thoſe who purchaſe it to expoſe ſome days in the ſun before they put it up, as its quality may thereby be preſerved.

How to bruiſe Coffee.

Before it is bruiſed it ſhould be expoſed to the ſun two days ſucceſſively, and begin only on the third when the ſun has heated it, for the fineſt Coffee will whiten under the peſtle, if it has not attained that degree of dryneſs which it requires, and it will even flatten. In a word, Coffee cannot be too dry, and the more it is ſo, the more eaſily it is bruiſed.

Every planter performs this operation differently, ſome in a mill, others in a trough, and others in a wooden mortar. I ſhall not determine which method is to be preferred, though the laſt ſeems to me the moſt eligible; as the ſtrokes of the peſtle are more certain and regular, the Coffee is leſs liable to be broke; and leſs eſcapes the operation from the peſtle, which performs it quicker. I mean this with reſpect to Coffee dried in parchment; as to that dried in the cherry the mill and the trough are better calculated for it; for as it is harder to bruiſe, it requires harder ſtrokes.

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As ſoon as the ſun's heat commences, the negroes begin their work; they are ranged two by two at each mortar; each having a peſtle in his hand, ſtrikes regularly, and alternately after each other; by this means the Coffee is diveſted of its parchment and its pellicle, from which it ſeparates without much trouble, as fifteen negroes may bruiſe two hundred weight a day. The facility with which this operation is performed evinces the expence of a mill is ſuperfluous; though thoſe who uſe one, may employ their negroes elſewhere; but this is a trifling advantage. Oſtentation is more concerned than œconomy; yet a rich planter ſhould have a complete manufacture.

How to winnow Coffee.

Whilſt ſome are employed in bruiſing, others are engaged in winnowing; there is alſo a third mill that performs this operation, and which is very uſeful, particularly when there is no wind, which is not often the caſe; but it is ſometimes not high enough, the mill is then of great utility, and cleans the Coffee infinitely better than the common wind; for beſides its clearing away the duſt and the pulverized parchment, it alſo purges it of the ſmall gravel, to which it is ſubject, caſting aſide the Coffee that had eſcaped the peſtle, as well as that which is ſplit. A ſecret has even been lately diſcovered of uniting theſe three mills together, and they are employed in theſe three different works by means of a horſe or a mule: ſo much does this manufacture each day approach nearer to perfection.

After the Coffee has been winnowed and culled from all that was defective in it, it is again expoſed to the ſun till towards noon, when the ſun darts his ſtrongeſt rays, it is then put burning hot into

into caſks, which are well covered over. This precaution is neceſſary; it hardens its grain, ſtops the pores, and renders it leſs ſuſceptible of the impreſſions of the air, and reſtores it to its primitive colour, which the ſun had tarniſhed. It ſhould remain five or ſix days in this ſituation: it ſhould then be expoſed one day more to the ſun for the laſt operation.

After ſo many preparations, and every thing being done to bring it to perfection, we ſhould be deceived in imagining it was out of all danger: it always retains a certain ſalt, by which it dilates with the leaſt humidity, and is rendered flexible, ſpots and becomes totally white. In contracting this humidity all its oil evaporates. Wherefore the drieſt place ſhould be choſen for it; and the planters do not bruiſe but in proportion as they are ſure of a vent for it, and no more at once than they can convey, that they may run no riſks. They alſo take care not to bruiſe it in a moiſt ſeaſon.

Produce of Coffee.

We calculate the produce of our revenues by the number of layers, which we ſuppoſe will produce a pound of Coffee each. Some produce much more, and others far leſs; this then is upon an average near the mark; obſerving that we do not include thoſe which have produced four crops; ſo that when, with a hundred head of negroes, a planter produces a hundred thouſand weight of Coffee, and the plantation is kept in good order, he has no reaſon to complain. How many negroes upon their firſt arrival in the country periſh before they have done any kind of ſervice to their maſter, and who fall dead upon being taken

taken out of the ſhip, as ſoon as they ſet foot on ſhore! What dreadful havock doth epidemical diſorders make among a ſet of negroes. The ſmall-pox from time to time makes ſhocking ravages, colds, fluxions of the ſtomach, with the yaws, and the various ſtages of the venereal diſorder, are but too often the attendant upon ſuch a libertine life as theirs. There ſcarce paſſes a day in the year when, among a great number of negroes, there are not ten or twelve at the hoſpital *; and when colds are frequent, it is impoſſible to limit the number.

It cannot, however, be denied, that their revenues are pretty conſiderable, when they have attained a certain point; but if we compare profit and loſs, much to be taken off: then there are ſome ſevere ſtrokes, that cannot be parried by all human foreſight. I ſhall give one example that recently occurred to a planter at Dondon: he ſet out with a Coffee plantation and ſixteen negroes; at the end of eighteen months, when he ſaw a pretty number of trees producing Coffee, he found himſelf reduced to a ſingle negro, the other fifteen being dead in ſo ſhort a ſpace of time; if he had ſufficient time to have reaped any advantage from his plantation, he might have had ſome reſource; but this not being the caſe, he was obliged to act boldly; this was to ſell his plantation, in order to produce ſome money, and to make another ſettlement in a diſtant part. I ſhall quote only this ſingle example, though it may be eaſily imagined there are many ſimilar.

The Makandaliſts have furniſhed ſufficient proofs of this, and have opened the eyes of the moſt incredulous. I ſhall paſs over in ſilence the frequent re-

* Each planter has, or ought to have, an hoſpital on his plantation to lodge the ſick.

volutions

volutions and accidents from fire, which are but too frequent in a country, where the greateſt part of the houſes conſiſt only of wood, and are thatched: ſuch an accident often abſorbs three years profits.

Such, gentlemen, is my general idea of theſe two manufactures: if any circumſtances have eſcaped me, they are of ſo little conſequence, that they are ſcarce worth attention. It is true, that frequent experience may produce ſome new diſcoveries; and if any ſhould reach my knowledge, I ſhall take a particular pleaſure in communicating them to the public, if they are intereſting. The indulgence that has been ſhewn me in the favourable reception of my firſt Eſſay upon the Indigo Manufacture, excited me to undertake that upon Coffee; and I doubt not but my character of a planter has had ſome ſhare in my ſucceſs, and that the ſame indulgence would not have been ſhewn a learned writer. If any faults have eſcaped me, they are at leaſt excuſeable in a man who is no ſcholar; and if the ſimplicity of my ſtile diminiſhes the value of the work, this will, at leaſt, be counterbalanced by the truth that reigns throughout. I relate nothing upon the hearſay of others. My reſidence for thirty-eight years upon the ſpot, hath furniſhed ſuch experience as cannot be queſtioned.

END of the TREATISE upon COFFEE.

CONCLUSION of the WORK,

BY WAY OF

SUPPLEMENT.

I DO not flatter myſelf that I ſhall meet with general approbation in this ſupplement to the foregoing memoirs, as I certainly ſhall not pleaſe ſuch perſons as work upon different principles from thoſe laid down here. Neither do I propoſe myſelf as a model to be followed throughout, as the narrow limits of my genius may eaſily be traced; wherefore I am not ſo preſumptuous as to fancy I am infallible in all my propoſitions; and if my opinions ſhould appear too dogmatical, this is rather the effect of my zeal than ſelf-admiration. In a word, if I riſk any thing, the advantage will not be on my ſide, but for thoſe who have diſcernment ſufficient to extract what is valuable, and to reject the ſuperfluous. Perhaps it may be imagined the *cacoëthes ſcribendi* has ſeized me, and from an indiſcreet zeal I have rendered myſelf tedious: but even in this caſe I could find ſome conſolation, if, at the ſame time they think my production tireſome, they reap ſome profit from it.—This is my object, however harſh or incorrect my ſtile may be adjudged. If this ſhould be my lot, I ſhall remind the reader, I only promiſed to inſtruct, and not to entertain him.

In this Concluſion I propoſe to lay down ſome maxims relative to the preſervation of negroes, a circumſtance

cumſtance attended with a clear profit to the planter: and notwithſtanding the picture I have juſt given of their evil genius is not very flattering, we are not the leſs intereſted in taking care of them, as appears from the calculation I have juſt made. I would, therefore, propoſe to the ſteward, to take ſpecial care never to be in want of vegetables. Perhaps he will ſay, the ſeaſon will not ſuffer their being planted; to this I anſwer, that it is only neceſſary to have ſome good caſſada, banans, and yams, which grow throughout the year, in deſpite of the greateſt drought. The yams which are planted in May, June, and July, cannot fail of a ſufficient quantity of rain; as to the other two vegetables, they will grow, let them have never ſo little of it. This is an eſtabliſhed principle that will admit of no objection, the application of which enables us to nouriſh well our negroes, and they becoming therefrom robuſt and ſtout, entitle us to the ſervices they can perform in that ſituation, which, however, we are too apt to over-rate. The ſteward, and all the inhabitants in general, begin by making an exact inventory of the negroes, and, by too frequent an error, calculate a revenue proportioned to their number: he from thence concludes, that he may boldly undertake ſuch works as the number of his negroes can perform, but overlooks the many avocations they muſt engage in. In the waſhing-days three or four black women are employed, which is the caſe every week. Negroes are engaged in digging caſſada. Then negroes muſt be ſent to the public works, an endleſs employment, in which the ſick cannot engage, when perhaps three or four in a may fall ill, and many more muſt be employed in various works, the enumeration of which would be tedious: in the mean while the main objects are neglected, the plantation is not properly attended to, and the planter muſt neceſſarily complain. He will conſider his ſteward as an ignorant fellow,

when his only fault arifes from an error in calculation. He reckoned upon fifty negroes, and fhould have built only upon forty (as there are always fome ailing, either through age or infirmity): there are moreover a number of negro nurfes, who lofe a fourth part of the day. Wherefore confider all thefe circumftances, and of courfe a tenth part of your negroes may fafely be computed ufelefs.

How the new Negroes fhould be governed.

This is an object that requires much attention. Thefe negroes are more capricious than thofe that are trained, and want a difcipline of a very different kind, and more moderation. It is neceffary they fhould have fome days of repofe to reftore them from the fatigues of their voyage; and the fteward fhould be particularly careful to provide beforehand a quantity of provifions of all kinds, proportioned to the number of negroes expected. I fay they fhould be amply provided for, as they may be confidered as fo many infatiable gluttons. They fhould not be fed with meat at firft, left they fhould take a diftafte to vegetables: this is a matter of great importance; for to this difguft fucceeds thofe diforders which are frequently fatal.

I lay it down as an invariable maxim, that it is neceffary to have provifions of all kinds. In fact, thefe new negroes are foon difgufted with the fame forts of eatables; and if they do not find a change they turn fulky and dull, and hence defertion may be expected *. Sometimes they take to eating earth

* When they defert they moftly take refuge in the woods and caves, where they live by rapine. Some of them are fo much difpofed this way, that no punifhment can deter them, wherefore nothing but heavy chains can prove effectual. This method of chaftifing has often wrought a falutary reformation.

and

and infects, which bring on incurable diſorders that terminate only with life.

They ſhould frequently bathe, during their firſt leiſure days, as well to keep them clean as to relax them. Some means ſhould alſo be formed to exhilirate them and make them forget the yoke of ſlavery they are going to embrace, and which they ſhould be made to prefer to the free ſtate from whence they came, which is frequently very wretched. A pipe and tobacco, a new dreſs, conſiſting of a ſhirt and waiſtcoat of coarſe cloth, ſhould be given them, which make them fancy themſelves the happieſt of men. Ambition once baniſhed from their thoughts, their ideas are all concentered in the wants of animal life: it is not, therefore, aſtoniſhing, if they think themſelves happy at ſo cheap a rate. They ſhould be ſparingly worked at firſt, and not at nights; that is to ſay, they ſhould be exempted from night-work, which the veterans perform, at leaſt for the three firſt months, when their work is, by degrees, inſenſibly increaſed. That they may not be diſguſted, ſome care ſhould be paid to the dreſſing of their victuals, which ſhould be given out to the negroes appointed for that purpoſe, who ſhould be watched that they diſtribute them equally, for the firſt ſix weeks; and in order to give them a kind of emulation for work, they ſhould be provided with their little furniture, ſuch as a kettle and a *canaris*, or large pipkin: if the planter is liberal, to theſe may be added a hen and a little ſucking pig for their beginning. A glaſs of brandy ſhould alſo now and then be diſtributed to them, which enlivens them; but there is a manner of doing all this—they ſhould be given to underſtand, they muſt deſerve all theſe bounties by their aſſiduity at work. If there be any lazy negroes among them, which is very frequent, they ſhould be deprived of all theſe benefactions: by this means emulation will be ſpurred in ſome, and

others will frequently become laborious to deſerve the ſame reward from their maſter; let this be obſerved in all the liberalities you ſhew to them, not to make a conſtant practice of them, otherwiſe they will conſider them as their due, or at leaſt that they very richly deſerved them: and on the other hand, when they abuſe your indulgence, ſeverity ſhould be uſed to bring them to their duty; by theſe means you will produce good ſubjects, and will not be expoſed to the loſſes ſuſtained by many planters, who often loſe five out of ten. The ſteward ſhould therefore conſtantly enforce his orders, and admit of no relaxation; he ſhould carefully prevent their being left to the diſcretion of the old negroes, who are frequently well pleaſed to take upon them the care of the new ones, to make them their ſervants, by putting them to the moſt laborious work, which immediately diſguſts the newcomers, who are extremely delicate with reſpect to being commanded or ill-treated by a fellow-negro; whilſt, on the other hand, they affectionately ſubmit to the orders of a white.

The ſteward ſhould alſo be careful that the chigar † does not lay hold of the negroes; it is very dangerous to neglect this object: thoſe who are thus affected, fall into a ſhocking languid ſtate, and nothing but the cleanlineſs I recommended can prevent them being attacked by this inſect.

It is ſcarce conceivable how much theſe new negroes try your patience; they will frequently want correction, and yet in theſe caſes you ſhould uſe nothing but indulgence towards them: you muſt repeat the ſame thing a hundred times, and diſcriminate between thoſe who err through malice and ignorance: to the latter you ſhould be merciful, and ſevere to

† This is a ſmall inſect, that penetrates into the fleſh, and does great harm when not ſpeedily extracted.

the

the other, who become good ſubjects merely by dint of correction; lenity to the former produces all you can deſire: but the number of them is very ſmall compared to the others; wherefore, though you ſhould rather be inclined towards mercy, you are frequently obliged to make uſe of rigour: this will prevail, and good negroes have more frequently been made through fear, than by an ill-judged clemency towards ſuch perverſe diſpoſitions. You ſhould reckon a year's apprenticeſhip for each new negro, before he can yield you thoſe ſervices that you expect: during this period you ſhould reckon their work in the general account, for if you increaſe your work upon the reinforcement of ſuch a young beginner, you will find your miſtake and be the dupe of your own calculation.

What relates to the veteran Negroes.

Having thus diſmiſſed the new-comers, we ſhall now return to the veterans, in order to define them. Theſe are acquainted with the work they ſhould perform, and they only require being kept at it; if they ſhould relax, they ſhould be brought-to by chaſtiſement: this is the moſt certain method; but it ſhould always be proportioned to the neglect or crime. For inſtance, drunkenneſs, which is the ſource of quarrelling, ſhould be rigorouſly puniſhed in its infancy, in order to extirpate it, and prevent all domeſtic quarrels. If any negro complains againſt another, it is your part to determine, and do juſtice to the aggrieved; but this ſhould always be done with the utmoſt impartiality; and if they ſhould be both in fault, they ſhould both ſuffer the puniſhment they merit, and they will be both ſatisfied, whilſt the ſeeds of diſcord are exterminated. Such is the ſpirit of a negro.

Here follows a propoſition that will not be reliſhed by every planter, as they do not all equally underſtand their reſpective intereſt. For my part, I am of a different opinion, and think it a good principle.

It cannot be imagined that two hours work is not an advantage; yet I am going to prove the contrary, without advancing a paradox. It will eaſily be perceived that I mean to ſuppreſs all night work. I ſhall firſt aſk, if a negro who has performed a good day's work, does not require reſt all night, inſtead of retrenching a fourth part of it in work, whilſt another fourth is taken up in preparing and dreſſing victuals. Scarce is he gone to reſt before day-break appears, and he muſt riſe, at a time when two hours miſapplied in watching would have repaired all the fatigues of the preceding day, with which he is ſtill overwhelmed. He muſt now go to work—but where is his vigour? and if he continues to go on ſo every day, muſt not his ſtrength ſoon be exhauſted? Can it be ſuppoſed theſe people are made of braſs, and that inceſſant labour will not deſtroy them? Such then are the fruits of working at night: leſs work done in the day-time, and the negroes falling to decay; whereas a negro that has had his proper reſt, and is full of vigour, in the day-time, and continues robuſt, to an extreme old age, or at leaſt this was the caſe formerly: but at preſent they are invalids at thirty or forty. The planters will tell you, they have earned the price of others; be it ſo, 'tis certain, however, we find it often difficult to keep up the number of our ſlaves.

This objection will perhaps be anſwered, that by employing them at night you prevent them going abroad; but this is impoſſible, if they are reſolved upon

upon it. In this caſe, from double fatigue *, they will be ſtill leſs able the next day to do their duty, than him who has only amuſed himſelf in walking; and if the planters were careful in allotting every one a female, their rendezvous would be leſs frequent, and another advantage would reſult from it, in the number of their offspring, which would repay with uſury the loſs of the old negroes.

The ſteward ſhould be careful to guard the negroes from the inclemency of the air, and have little thatched houſes at proper diſtances to ſhelter them from the rain. How lamentable it is to ſee negroes who have no cloaths to cover their nakedneſs, expoſed to the injuries of the weather and the night colds, without a covering, extended upon a couple of planks, by the ſide of a little fire of cow-dung for want of fuel, and which cannot communicate heat ſufficient to warm their bellies and ſtomach. A little humanity does not ſpoil a negro: beſides, if he abuſes it, the remedy I have already pointed out is eaſy.

There is nothing more pernicious to health, than being conſtantly in the rain. Wherefore a glaſs of brandy ſhould not be refuſed a negro, whoſe vigour has been hurt by cold: do not let him make a cuſtom of drinking brandy, and you riſk nothing: the apprehenſion of ſpoiling a negro ſhould not prevent our affording him aſſiſtance in time of need: if he has an inclination for drink, it is eaſy to prevent it.

I might expatiate ſtill farther upon this matter; but leſt I ſhould tire the reader, I have only laid before him

* Hence ariſe fluxions of the ſtomach, which are ſo common from theſe meetings and vigils; for far the greater part of negroes periſh from diſorders of the lungs.

what was advantageous and uſeful. The objects which I have diſcuſſed, and which I have inveſtigated by dint of great experience, will ſecure me from reproach and criticiſm upon this occaſion. I am ſenſible that every one has not the faculty of inſtructing and pleaſing at the ſame time, But if the reader ſhould not be pleaſed, he will at leaſt be inſtructed; if, indeed, I ſhould have hit his taſte in both reſpects, the luckier for me, the better for him. —I ſhall then completely have attained the object I had in view.

The

The ſingular Metamorphoſis of an Inſect called the Mahocat.

I Doubt not but the phænomenon, of which I am going to write, will be conſidered by many as fabulous, and I muſt naturally acknowledge, that I ſhould have been of the ſame opinion, if I were not convinced of the contrary, by the indubitable teſtimony of ſeeing and feeling. It is true that this is ſuch a prodigy, that it ſeems equally to ſhock truth and good ſenſe; it is nevertheleſs a truth I can atteſt. This animal is a worm, quite white, about the ſize of one's thumb; its head is very dark brown, or black, with two rows of feet under the belly: it is uſually very fat, and its ſkin is ſo fine that it is tranſparent. This is the ſame inſect as is called at Martinico the palmiſt-worm, which the inhabitants of that iſland eat with pleaſure; though in my opinion its figure is ſufficiently diſguſting; but when antipathies are ſurmounted, every thing is good. I found one of theſe mahocats in an old trunk of a tree, that had been rotten for ſome years; the animal was petrified, of the conſiſtency of a pummice-ſtone, full of pores; it was no way damaged; each of its feet as well as its beard, were furniſhed with roots of five or ſix lines in length, forming branches nearly reſembling the branches of a ſtag's horn: it had not yet any trunk or branches; but according to all appearance, it would not be long before they were formed. I attentively inſpected this animal, when my negro-commander came up to me: ſurpriſed as he was at my aſtoniſhment, he made me comprehend, that what I ſaw was nothing but the effect of nature; that he had ſeen ſeveral in his country become ſhrubs three feet high, the leaves of which re-

ſembled a plant which he inſtantly ſhewed me, and which approaches pretty near to a walnut-tree.

Let naturaliſts conſult the principles of their ſyſtem upon ſo ſtrange a phænomenon, in whoſe hands I leave its inveſtigation; being contented with admiring it, and carrying home the animal, where ſeveral have contemplated it: but having put it in a tin box, one of my children, about four or five years old, had the curioſity to take up the box in my abſence, and loſe the animal. I then greatly regretted having poſtponed the deſign I propoſed, of having the figure of it drawn. If the reader ſhould have any ſuſpicion concerning the certainty of the fact, I beg he will reflect one moment upon the ſincerity that reigns throughout my work, and he will be of opinion that I would not have concluded it with a falſity, which, ſo far from embelliſhing, would have diſfigured it.

ADVERTISEMENT,

Relative to ſeveral Letters addreſſed to the Author, concerning the Opinions occaſioned by his Work.

MY little lucubrations having produced various letters, I thought I ſhould not diſpleaſe my readers by communicating ſome of them at the end of theſe memoirs. One writer among the reſt has thought proper to condemn my obſervations upon the Culture of Coffee, in ſubſtituting his own, which he judges better. I think I have anſwered his objections in a manner to convince him, that they ought not to alter my opinion. But this diſquiſition I ſhall leave to the judgment of the impartial reader, which ſhall determine on whoſe ſide reaſon lies.

Fort

Fort Dauphin, April 10, 1749.

SIR,

YOU could not have conferred a greater pleaſure on me, than by the gratification I have received from the ſequel of your Complete Indigo-maker; I have read the whole with infinite ſatisfaction. Tho' my works are not liable to all the inconveniencies that you have ſo judiciouſly depicted in your book, I cannot help profiting from the ineſtimable and well written contents. It cannot fail pleaſing both our planters and men of letters; the firſt, by the uſeful inſtructions they will derive from it; and the ſecond, by the ſenſe and the ſhrewdneſs of your obſervations. Your ſtyle is delicate; truth is not obſcured by diſguſting fictions; every thing is clear and and dictated by reaſon. The judgment of one of our ſatyrical poets, a great maſter in the art of writing, may with juſtice be applied to you.

Omne tulit punctum, qui miſcuit utile dulci;

"He (ſays Horace) will always carry the prize who can blend the uſeful with the agreeable."

Such, ſir, is my opinion of your work, and which, I imagine, will coincide with the ſentiments of all men of ſenſe; my ſuffrage is but of little conſequence to a man like you, whoſe name alone is a ſufficient elogium: but I always glory in acknowledging merit, wherever I find it, and being its conſtant admirer. I am, with all poſſible friendſhip and eſteem.

Sir, your's, &c.

(Signed) GAUDON.

Anſwer

Anſwer.

SIR,

YOU are very liberal when you chuſe to pay a compliment to your friends, or thoſe you honour with your eſteem. As I dared not rank myſelf among the number of the former, you will, I hope, allow me to flatter myſelf that I hold ſome rank among the latter. In this belief I ſhall act with my uſual frankneſs, and will ingenuouſly acknowledge, that the abundant praiſe you beſtow upon my little eſſay would appear to me ſomewhat ſuſpicious, if I did not know that novelty has a right to pleaſe every where: it muſt neceſſarily have made a ſtrong impreſſion on your mind, to produce elogiums ſo far above the merit of the work; but it is ſufficient to be honoured with your eſteem to obſerve, that you ſtudy to exalt the perſons concerned, as well as their works. For my part, being conſcious that I am very diſtant from that perfection you are pleaſed to aſcribe to my little performance, you muſt not be ſurpriſed at the ſlight impreſſion the favourable opinion you have conceived of it, makes upon my mind. I ſhall not, however, now omit teſtifying how ſenſible I am of your politeneſs, and the obligations conferred upon me, as well as aſſuring you of the real attachment with which I have the honour to be,

SIR,

Apr. 11, 1749. Your's, &c. E. M.

Limonade, June 15, 1751.

SIR,

I AM highly ſenſible of your attention, and thank you for your complaiſance, in ſending me the Complete Indigo-Maker. I have read it with pleaſure,

ſure, and find it very inſtructive. It muſt, doubtleſs be very uſeful to this colony. I return it you by the bearer. I have the honour to be, moſt ſincerely,

SIR,

Your's, &c.

FRANCOIS DE LA VIVIAUD.

Mocha, Jan. 26, 1758.

SIR,

I HAVE read your MS. upon the Culture of Coffee; the experience you have acquired by thirty years practice*, does not ſuffer the juſtneſs of your remarks to be doubted; but as ſomething more than mere exactneſs is neceſſary, permit me to add my remarks to yours. I imagine you are exempted from the partiality of authors, who are apt to conſider a reader's obſervations as criticiſms.

The utility that may be derived from your work, will induce many to tranſcribe it, that they may always have an experienced guide at hand; they may alſo retrench or increaſe it; or, perhaps, both; but they will not diminiſh the glory you have acquired from the firſt notions you have given of the culture of coffee. Notwithſtanding the ingratitude of Americanus Veſpaſius, towards Chriſtopher Columbus,

* As my little treatiſe upon the Culture of Coffee, appeared detached from the Complete Indigo-Maker; and as it is there mentioned towards the end, that thirty years experience ſhould remove every doubt concerning the obſervations, made upon the whole, which includes the two treatiſes, I am compelled to acknowledge, that ſome confuſion may from thence ariſe, with reſpect to Coffee, as I had ſcarce three years experience, when the fancy took me of throwing together my remarks upon that head for the amuſement of my countrymen.

the

the remoteſt poſterity will be ſenſible that the diſcovery of America is to be aſcribed to the latter. I could quote other examples, but your modeſty would be hurt; and we will, therefore, enter upon the ſubject.

Coffee was diſcovered, according to the Maronite Tauſſa Niceronne*, by the prior of a convent, after he had been informed by a man who had the care of ſome goats, that he often ſaw his herd awake, and leap all night. This information from the ſhepherd induced the prior to make an eſſay upon the virtue of this grain in preventing ſleep. He at firſt uſed it, to prevent the monks (who are naturally lazy) ſleeping at matins.

You are of opinion, ſir, that a plenty of Coffee would greatly reduce its price; experience would induce us to believe that this could not happen. About thirty years ago there were very few ſugar-works; ſugar was then very cheap: the manufacture has increaſed, and the price alſo. What then hath occaſioned this revolution?—the intereſt of commerce. At that time twenty ſhips were ſufficient to furniſh the neceſſaries this colony required, and export its produce: now upwards of a hundred are required for the town of the Cape, and its dependencies: a greater number will be wanting when the Coffee is produced in greater quantities. Fear not the induſtry of commerce; if the merchants did not know how to diſpoſe of your Coffee, they would not ſend for it. Are you afraid that you will want ſhips? If you reflect upon the advantage derived to the nation from maritime commerce, your apprehenſions will vaniſh.

It cannot be conceived that Coffee, at ten ſols, will not produce above ſix net profit: you calculate the expence at two-fifths; but it does not amount to ſo

* Vide Dictionary of Trevoux.

much:

much: for example, 200 lb. of Coffee, at ten ſols per pound, will produce 100 livres in money.

	£.	s.
	100	0

From whence deduct the expence as follows:

	£.	s.	£.	s.
Paſſage - - -	0	15		
Commiſſion, at 2½ per cent. -	2	10		
A horſe two days - - -	3	0		
Two ſacks, at 36 ſols each, which uſually make 6 voyages -	3	10		
The expence of wainage cannot be calculated I ſuppoſe -	3	0		
			12	15
All the expences paid, there remain of the 100 l. - - -			87	5

Note, A livre is ten-pence halfpenny ſterling.

This calculation clearly proves, that the expences do not amount to a ſeventh part; I don't mean to conclude from thence, that a great fortune is to be made; but a planter may live as well as a ſubſtantial tradeſman, bring up his family, and leave his heirs the foundation of a fortune.

Though the root of the Coffee may be damaged, the tree will not periſh, if, as ſoon as it is perceived to turn yellow, it is cut about four inches from the ground; the ſap iſſuing no further, will form freſh branches in the firſt trunk: his is not, however, without exceptions; for if the ſtump hath no branch or twig left to communicate nouriſhment, it will periſh before the ſap has formed one

After the Coffee has produced four crops (which is known by the fading of the leaves) and there is no longer plenty of ſap, the tree muſt be cut as above:

above: what risk is there? As it produces no longer, it is better to have a chance for two good crops.

Instead of lopping the flowers, some knots of the stock should be cut off, immediately after the Coffee is gathered, and the sap will spread itself more plentifully in the branches that remain, and make others grow, which sometimes bear fruit the same year. It is not true that small fruit grows only on old trees, it depends much on the soil: this may be seen in the neighbourhood of the Great River, where the ground is very light.

You imagine that the water which remains in the holes produces a good effect: but you have not determined whether you mean before or after the Coffee is planted.

Those who plant at three or four feet distance, have not, doubtless, good ground: and in this case, when they stop their Coffee, at the height of about five feet, they will avoid the inconveniencies, that you observe very justly.

The manner of digging holes with a *louchet* is to be preferred in stony grounds, as it clears the stones which would otherwise prevent the layer from penetrating. Moreover, the iron tool does not determine the depth of the hole. You seem inclined to prefer planting during the north winds; the frequent rains seem to be the motives. Our sentiments are different, as I should always prefer planting from April to August; and this is my reason. Coffee layers planted in April, &c. having but fourteen months to the August of the succeeding year, the last month of their blossom, cannot produce much, till the year after: two years have then elapsed, and they are sufficiently vigorous to bring their fruit to maturity: whereas Coffee planted at the end of the year, having twenty months to blossom in to the time of discontinuing in the second year, and not having yet

acquired

acqnired that vigour which they derive from age, they cannot bring their fruit to maturity; or if they do, the ſap is almoſt abſorbed, the tree becomes ſterile during two years, and ſometimes periſhes in the third. In a word, if I were to plant during the north winds, it would be becauſe I could not do better. You admit that peaſe, rice, and maize may be planted in the Coffee-grounds; but experience has taught me, that by planting nothing we ſhould do better; our lands are not good enough to nouriſh ſo many things at once; it being certainly deprived of what the peas, rice, and maize gain: beſides, if there were no vegetables among the Coffee, we might weed much faſter; and if vegetables were planted in a ground ſet apart for themſelves, they would be planted nearer, and of courſe the weeds could not injure them.

A planter who has ſixty acres of land well managed, has enough to work upon for fifty years. Suppoſe he begins with twenty negroes, and that he clears the two firſt years ten acres; that he plants half of it with Coffee; he will have 40,000 layers of Coffee, and the remainder in negroes huts, vegetable grounds, and ſavannahs; let him then clear every other year a ſpot of ground to plant 10,000 layers of Coffee and vegetables: let him religiouſly obſerve this rule, and he will certainly have land ſufficient for upwards offifty years, and his grandſon will find it ſo

When there is any blaſted Coffee, you muſt ſhake the tree before you begin to gather, otherwiſe a great deal muſt be culled: if, however, there is any good Coffee among the blaſted, and the crop ſhould not be plentiful, it ſhould be gathered firſt; but I know from experience, that you are but ill requited for the time thus employed.

Coffee is not ripe all at once, becauſe it does not bloſſom all together.

I think

I think it much better that all the negroes ſhould ſhare the fatigue every night, than to except a part, whilſt the others are at reſt: this, however, is a matter of opinion.

If Coffee is eaſily waſhed by being fermented all night, it will waſh ſtill more eaſily by letting it ferment till the next night: the longer the fermentation, the gum will more eaſily ſeparate: by this means the negroes will have no occaſion to riſe before day, which is a very material object.

After the Coffee is winnowed, it is expoſed to the ſun; to which I add, as it is not entirely cleared of the pellicle which adheres too cloſely, it ſhould be ſhut up quite hot, and at the end of three or four days expoſed again to the ſun; then put again into the mortar, the pellicle will then go off more regularly, and the Coffee become infinitely finer.

Among the number of Coffee-trees I have cut, I have found ſome put out three branches at each knot; in the ſame layers others have only two branches. I ſhould be glad to have this accounted for.

Such, ſir, are the remarks I have the honour to communicate to you; I ſhould be glad to be near you, to profit of your manner of cultivating Coffee. I ſtand in need of ſo great a maſter; but the diſtance between us will not prevent me (with your leave) waiting upon you for inſtructions., I have the honour to be, with the greateſt conſideration,

GRAIMPRE.

Anſwer.

Feb. 1, 1758.

SIR,

THE honour of your correſpondence would have highly flattered me two years ago, when my ſight was perfect; ſince then, a *gutta ſerena* has ſo far

far debarred me of it, that I cannot read any writing, not even my own, writing only mechanically, and by habit: you muſt not therefore, ſir, expect a regular anſwer to your obſervations, which require ſome attention, and more particularly the benefit of the eyeſight: when you have nothing better to engage yourſelf, you may honour me with a viſit; when I may perhaps, explain to you *viva voce*, what you deſire me to acquaint you with. What you may learn with greater certainty is the perfect eſteem with which I have the honour to be,

SIR,

Your's, &c.

E. M.

When I wrote upon the Culture of Coffee, I had not three years experience; it was only a ſequel to the Complete Indigo-Maker, and to fill a volume. I am ſenſible it has more the appearance of a deſcription, than a regular treatiſe; nor did I intend it ſhould appear without correction; but man propoſes, and God diſpoſes: it was, as I have before obſerved, nothing but a ſketch for the amuſement of my countrymen.

A poſitive Anſwer to the Objections made by M. Graimpré.

SIR,

HAVING ſomewhat recovered my ſight within theſe eighteen months, I have lately peruſed ſeveral letters I found in a corner of my bureau, and by chance one of your's; and after the peruſal, finding myſelf capable of partly ſatisfying you, I made the following reflections upon your obſervations.

As each perſon thinks his own way beſt, mine cannot chime in with the ſentiments of every one; nor did I ever expect it; which may be eaſily comprehended

hended in the ſtyle of my little work, and particularly in the Culture of Coffee, where I only propoſed my opinion with ſubmiſſion to the reader, and without pretending to preſcribe it in preference to others. I had not three years experience, as I have had the honour to obſerve to you, when the fancy took me of throwing my remarks upon paper. Whether the original has been mutilated, I know not; but in the copy which is before me, I find ſentiments that are not agreeable to mine. Be this as it may, I ſhall endeavour to anſwer preciſely to your obſervations; and if I do not entirely agree with you, ſir, do not imagine it is becauſe your ideas differ from mine, or that I propoſe cenſuring them.

You ſet out with acquainting me with the fabulous hiſtory of Coffee diſcovered by goats, quoted in the Dictionary of Trevoux; tho' I was perhaps acquainted with this ſtory before you, I was very careful how I introduced it; though it might happen that the goats, by the attraction of fruit on which they feaſted with pleaſure, were the firſt cauſes of its diſcovery, &c. but that the prior of the convent ſhould make the trial upon his monks (ſuppoſing them lazy) to know the virtues of Coffee in preventing ſleep, appears very fabulous.—Tell me, pray ſir, how he prepared it, in order to know immediately the effects, at a time he muſt have been completely ignorant of ſuch a berry?

You think my apprehenſions are groundleſs, when I ſay that a glut of Coffee would certainly reduce the price: experience has but too clearly evinced the danger, and I am certain you will never ſee Coffee again ſold at twenty and thirty ſols a pound, as it was heretofore. Whatever you may ſay with reſpect to commerce, this manufacture is but a ſupplement to the others. I will, however, agree with you, that the moſt conſiderable planters will always find their account in it.

You

You ſay that Coffee at 10 d. muſt produce more than 6 d. net profit, whereupon you frame an imaginary calculation. But if you will pay a little attention you will find your error to be greater than mine.

You ſet down fifteen ſols for the expence of freight; though you know our ſacks do not exceed a hundred weight, and that twenty ſols per ſack is often paid; tho' our merchants pay only fifteen. A horſe two days you ſtate at three livres ſix ſols; but no body would perform the wainage for leſs than twelve livres per load, though it is but a day's work.

You are not ignorant that we have ware-houſes in the plains, at the foot of the mountains; from whence the load is carried by wheelbarrows to the place of embarkation, at the rate of a ſol per pound, which, according to me and Bareme, amounts to fifty livres per thouſand. I have ſeen planters at Dondon, to whom Coffee delivered at the Cape had already coſt out of their pockets three ſols per pound, before they had paid the commiſſion; wherefore Coffee being at ten ſols, is not the profit ſufficient to live like a good tradeſman, bring up a family, and leave to one's heirs the foundation of a fortune, as you expreſs it?

If the root of the Coffee be damaged, you will have a great deal of trouble to recover it, whatever care you may take to cut it; if it buds,, it will weaken in proportion as the buds grow; and it is ten to one that they periſh in the firſt crop.

You are of opinion that the Coffee-trees ſhould be cut after the fourth crop; but mine on the contrary is, that this operation will exhauſt them; the greateſt part will fail; thoſe which promiſed the moſt, will do the ſame in the firſt crop, if you do not take care to leave no more wood than they require to fructify in moderation. The moſt certain method, in my opinion,

nion, is to leave them on foot as they are, during their ſterility; lop off only ſo much wood as appears ſuperfluous, keep them very clean, and you will find your advantage.

Inſtead of ſtripping the flowers, &c. I have nothing to ſay upon this head; conſult my memoirs, you will there find my thoughts upon the ſubject; if you do not find any thing upon it in your's, you may recur to the original.

You are right when you ſay, old trees only do not produce the little Coffee: this I experienced ſince my firſt obſervations, and have ſeen ſome that far exceeded that of the young layers. This may be aſcribed to the irregulariry of the ſeaſons, rather than the ſoil, as this happens only in certain years.

Whether the water remains before or after the Coffee is planted, the plant does not receive leſs coolneſs from it, which I aſſert is ſalutary, as this ſame coolneſs prevents its fading.

With reſpect to what I ſay concerning planters, who plant at three or four feet diſtance, you conclude from thence that the ſoil is ungrateful; to which you add that in this caſe you adviſe ſtopping the growth of the Coffee layers at the height of five feet: I am ſorry to tell you, that here you are greatly miſtaken. I am certain that a layer of Coffee of this height (unleſs it be in a very deep ground) would not produce two years ſucceſſively. If you have a mind to conſult the original thereupon, you will ſee the very oppoſite to your opinion ſupported by very plauſible reaſons.

Your manner of making holes in ſtony grounds is very juſt: I ſhould want ſenſe to condemn it: I made this obſervation for thoſe only, who indiſcriminately plant in all kinds of ſoils.

Next is an article, which, if I miſtake not, is founded more in prejudice than reaſon: you are aſtoniſhed I ſhould

ſhould be inclined to plant during the north winds. Beſides the reaſon I have aſſigned, I could deſtroy your's in an inſtant; and, as I may ſay, defeat you with your own weapons. You there lay it down as a principle, that Coffee planted at the end of the year having twenty months of bloſſom in the ſecond year, produces plentifully; and that not having yet attained that vigour which age communicates, their fruit cannot attain maturity. When did you ever find that the firſt crop occaſioned the leaſt damage to the tree? The plant is ſo vigorous at that age, and produces ſo little, that it imitates in verdure the laurel: it is not, however, the ſame at the ſecond crop, when the layer is in its full force, and is ſo laden with fruit, that it bends under its own weight, and is in great danger of periſhing. It is to avoid this accident, that I adviſe it ſhould be ſtopped at two feet and a half, or three feet at the utmoſt; for I have aſſigned an unanſwerable reaſon, if I am not miſtaken. If it is not in your copy, you will find it in the original.

You think I am in an error, when I allow the planting of rice, peaſe, and maize, between the rows of the Coffee-trees, whilſt they are growing; but with your leave, this is not taking the literal ſenſe of my principles, to confound all together: when I ſay that a row of maize, or of rice, between a row of Coffee at ſix feet diſtance, cannot any way prejudice the tree, I cannot think any planter will differ with me, but that he will join with me to profit of uncultivated land, which coſts him much more to maintain when entirely uncovered, on account of the greater quantity of weeds to be taken away.

You ſay that a planter who has ſixty ſquare acres of land, hath a ſufficiency for fifty years. I refer you, ſir, to your own diſtrict, where, I believe, Coffee has not been cultivated upwards of fifteen years, if you except the three firſt planters; there are few who

poſſeſs leſs than one hundred acres of land ; now pay attention to the enormous clearings in ſo ſhort a time, and I am perſuaded you will be convinced of your error. Toute Sante Suſanne, which was peopled ſome years before, hath ſcarce any land left to cultivate ; ſo far from the planters leaving any for their grandchildren, there remains nothing for their own children but barren ſavannahs.

Since I ſtopped my Coffee at the height mentioned, I have had none that have been ſcalded, which proves the method to be a good one, and that the layer will produce no more fruit than the ſap can nouriſh. As ſoon as it is perceived that the Coffee is inclined to ſcald, cut a third of each branch which is injured that moment, and you will thereby prevent its drying.

You are of opinion, that it were better to employ all the negroes at once, without allowing a part to reſt. You do not then attend to the limited number employed, the overplus being unneceſſary.

There is another contradiction, of which I cannot help reminding you, where you ſay the more the Coffee ferments, the better it ſeparates from the gum : in this I agree with you ; but if you wait till the next day to perform the operation, you will interrupt the crop, and ſuffer by this delay ; and if you wait till the next night, you run the riſk of having your Coffee heated, which will blacken or redden it very much.

Your method of putting the Coffee again in the mortar, when it has attained a certain degree of perfection, is eligible, and cannot fail of delivering the Coffee from its pellicle, and embelliſhing the quality.

Your laſt article is not eaſily underſtood ; nature in her productions often baffles our niceſt obſervations, notwithſtanding the baſis of the moſt conſtant practice. It is not more extraordinary to ſee a layer of

Coffee

Coffee produce ſeveral branches, than to ſee the vine-buds multiply after being cut.

This, ſir, I imagine, you will conſider a pretty exact reply to your obſervations. Perhaps you may complain of the freedom I have uſed in it: in this reſpect let us acquit each other mutually, and believe, if you pleaſe, that I take all your objections in good part. This is ſo true, that I invite you, and ſuch of your friends or acquaintance, who may make ſome new important diſcoveries, to honour me with their correſpondence, and give me advice; and I promiſe to inſert their informations in my memoirs, and give the name of each writer; which may immortalize them at a ſmall expence.

I have the honour to be, with great eſteem,

SIR,

Oct. 29, 1760.

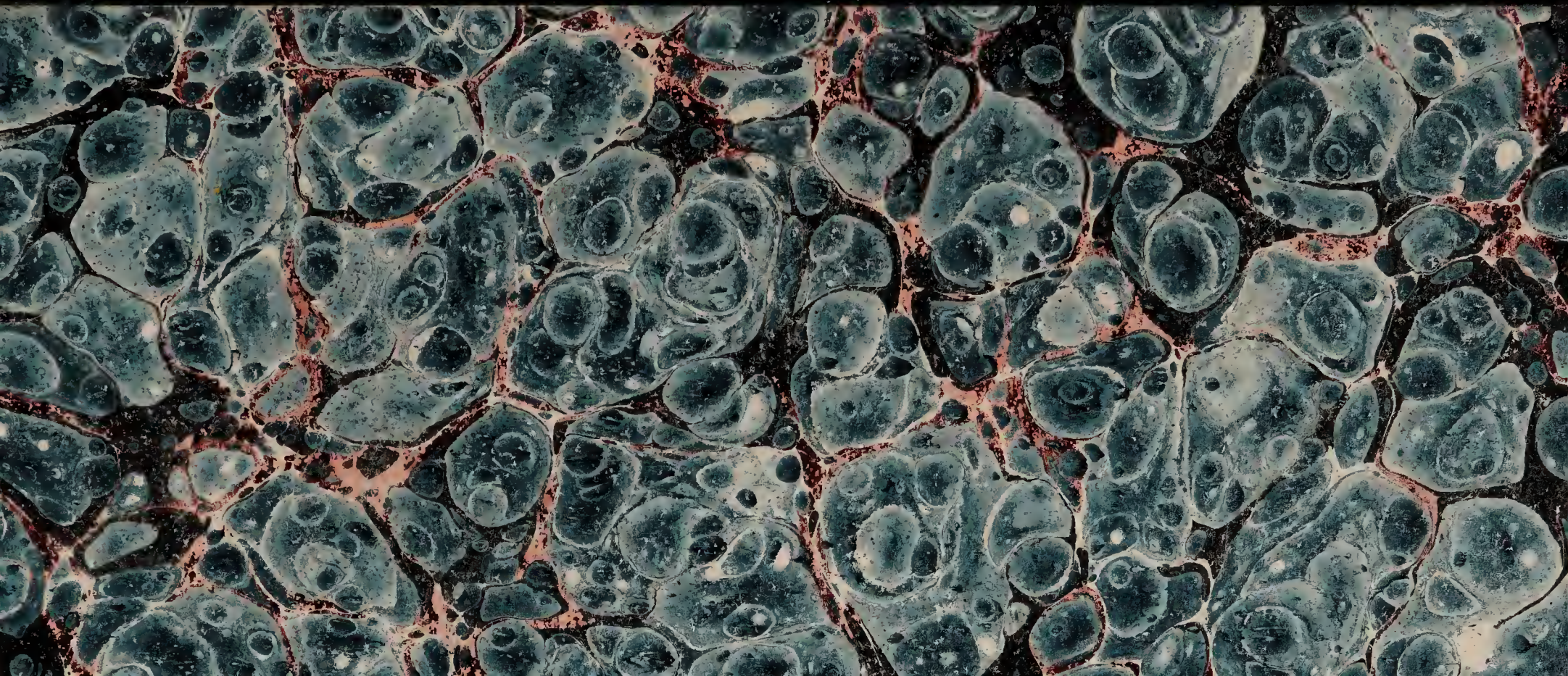
Yours, &c.

E. M.

THE END.

DESCRIPTION of the PLATE.

The Steeper ſhould be 10 Feet long, 9 wide, and 3 deep.
The Beater ſhould be 6 Feet wide, 5 deep, and 6 long.

A. The Steeper.
B. The Beater.
C. The Receiver.
1. The Keys.
2. Crooked Timbers.
3. The Buckets.
4. The Horn.
5. The Rake.
6. The Rack.
7. The Opening.
8. Trough for conveying Water.
9. The Bars.
10. Negroes carrying Bags.
11. Stand for the Boxes.
12. The Drying-houſe.
13. Damſel.
14. Calebaſh for emptying the Indigo into the Bags.
15. The Overſeer.

There is a Damſel placed in each Mortiſe of the Bars, having 7 or 8 Holes in it, through which a Pin goes, higher or lower, according to the Quantity of Herb in the Steeper.